

GENDER PRAXIS: RURAL FIJI RADIO AND MOBILE DEVICES

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Abstract

This communications study looks at gender-based self-reflexive theoretically guided practice, “praxis,” to explore the way in which a women's community media organization, femLINKpacific, pursues its goals of enhancing women's participation in governance structures and resiliency to extreme weather conditions. This study contributes to the nascent literature on mobile device and radio interaction by exploring the way in which women in rural Fiji utilize mobile devices to interact with femTALK, the community radio station of femLINKpacific. The study is based on the theoretical frameworks of inclusive innovation, post-development theory, and participatory communications theory in the context of gender-based ICT4D. Two main platforms, Mobile Suitcase Radio (MSR), a portable radio platform, and Women’s Weather Watch (WWW), a mobile-phone based weather reporting network, and an additional non-mediated communication venue of monthly women’s gatherings were explored through a 3-phase study, utilizing interviews and focus groups, with radio station staff and women leader’s networks.

Main findings included the role of WWW to transmit information for preparedness for Tropical Cyclone Winston, and indigenous food practices shared through the various platforms, as well as the role of MSR, when used in conjunction with the issues shared at the monthly consultations, to bring greater awareness to the women’s “voice.” This study extends to understanding the role of mutually supportive, systematic processes to enhance women's participation in governance structures, including the role and effectiveness of inter-ethnic groups in addressing community issues, and capacity building through incremental acclimatizing activities.

Dedication

Ultimately, this dissertation is about role models. And I have been blessed with role models in my grandparents and parents. First, my dad, Dr. Farzin Rahmani – an anesthesiologist by profession, dedicated father, husband and brother, who brings a smile to everyone he meets, he first moved to the UK in his twenties for medical training. He has a keen sense of humor and intellect, and is a long-standing servant of humanity, through his medical and educational projects throughout Latin America and Africa, and his entrepreneurial ventures, and of course his service as a dedicated and humble Baha'i who strives every day to make the world a better place for all, including as a pioneer to Nigeria, Afghanistan and Jamaica. My mom, Gloria, a hard-working and diligent mother and sister, is also an entrepreneur, a dedicated Baha'i, who moved first to England in her teens, and then the United States. She also pioneered to Nigeria, and has served at the Baha'i World Centre in Israel, has a keen intellect, is a good friend and linguist, She's studied hospitality management, and Spanish and French, and continues to work, in hospitality management. They gave me life and have loved me and supported me unconditionally every moment of my life!

My paternal grandmother, Azar Maghzi Rahmani, and grandfather Hadi Rahmani-Shirazi, who had to relocate from their homeland due to the persecution heaped upon them as members of the Baha'i community of Iran. They settled in England and helped raise me during the formative years of my life. My sweet grandmother, Azar, the gentlest, kindest, most loving, self-less and encouraging person I have ever had the good fortune of knowing. As a dedicated Baha'i, she served her community on Baha'i institutions in her homeland, and was also a bank clerk at a time and place where women did not tend to work outside the home. My grandfather, a kind and generous man, was an incredible role model to me of what a husband and father should

be. He was the CEO of the first Baha'i-run bank in Iran, and was described as “steadfast, selfless and full of humor.” As a Baha’i, he served on the Institution of Counsellors, and with my grandmother and father, pioneered to Afghanistan, and traveled the world and often regaled visitors to our home with humorous and exciting stories from his travels, and maintained diligent correspondence with his life-long friends, around the world.

My maternal grandmother, Pari Sadeghi, a lioness in her love for her family, also served on Baha'i institutions in her homeland and in the United States; and my grandfather, Dr. Hassan Sadeghi, a pediatrician, who loved to dance and make jokes, who also had to relocate from their homeland for their steadfastness as Baha’is, and settled in America.

Those that seek to empower and serve others, do so through the example that they set for others, and conversely, the forces of oppression, who oppress the minds and hearts, do so through limiting the dreams of what our children might become, and in the final analysis not only to the detriment of the realization of the potential of humanity, but also to their own detriment. So, this is dedicated to my parents and grandparents, and to every parent - the dream-makers. We build on their dreams and fly.

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Vinaka, Mahalo, Merci, Xiexie and Gracias

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Newspaper mania
and press media
are neo-colonisers
being imposed
on societies
where very different
centuries old
means and channels
of communication
tested by eons of time
already exist.

Poem by Ni-Vanuatu poet Grace Mera Molisa (1983, p. 14)

1 INTRODUCTION

Increasingly, scholars and practitioners are recognizing the importance of the role of technology, in particular communications technologies, in social change. From the use of social media in the Arab Spring (Gerbaudo, 2018); micro-blogging and the recent women's movement in the US (Reile, 2017); the adoption of alternative SMS-based banking and finance infrastructures in Kenya and Afghanistan (Ngugi et al., 2018) ; to the mobile phone-based communications tools used in Hong Kong's umbrella revolution (Stacey, 2017), there is a progressive and revolutionary process underway in mankind's ability to collectively organize to address the value-based challenges of the day. And this may all be attributed to the rapid evolution and adoption of communication technologies.

Certain communities in particular, have been served well by the adoption of communication technologies, and this dissertation deals with one specific community. The central thesis of this dissertation is that socio-technological processes from the adoption of mobile technologies along with the widespread availability of the medium of radio, have helped women in rural and agricultural communities in Fiji to develop innovative tools and processes promoting gender equality using an interactive process between the two technologies. Specifically, the socio-technical networks and processes that develop as a result, enhance both governance participation and extreme weather condition resilience, as well as support the "praxis"¹ and generation of knowledge within this population.

Supporting evidence, in terms of the importance of the role of gender equality in economic life, community decision-making, and health and education access, has been well

¹Discussed further in the literature review.

documented and extensively defined (Rummery, 2018). Furthermore, Pacific Islander women's efforts and responses to climate change continues to be explored (Kuruppu, 2009; Campbell, 2010; Dankelman, 2010; Djoudi, 2011; Gero, 2011; Parker, 2012; Chant, 2012; Razavi, 2012, Lebel, 2013; Nunn et al., 2014; Whyte, 2014). Similarly, rural and agricultural development continues to be recognized as a foundational aspect of overall economic development (Christiansen et al., 2011), and in this dissertation, is explored as formative for rural women's processes for economic empowerment as well. Thus, we see, with these dynamics, the role of communications technologies by and for women in rural settings is worthy of consideration.

As a medium that has traditionally been accessible to and used by rural populations, radio is second to none. It remains one of the primary communications technologies accessible to most of rural audiences in developing countries, to such an extent that "even in impoverished communities, radio penetration is vast" (Farm Radio International, 2015, p.1) This, as Farm Radio International (2015) recognizes, is mainly due to limitations in infrastructure, affordability of technology, and literacy considerations. The recognition of the accessibility and popularity of radio drama for entertainment, transmission of values, and education content has also been well recognized (Craddock and Duncan, 2008). In recent years, mobile technologies have seen similar penetration in rural areas, and this massive growth is seen even even in the most rural and poverty-stricken areas. Statistics show global penetration rates of 97% in mobile technologies, including 86.7% broadband mobile penetration in developed countries and 39.1% broadband mobile penetration in developing countries (International Telecommunications Union, 2015).

In order to understand the broader context of media penetration in Fiji, it must be noted that 60% of Fijians are estimated to have access to television, and 33.74% are estimated to be internet users. This is in stark contrast however to the mobile penetration rate, which stands at a

substantial one mobile device (98%) per capita, and almost universal radio access, even as there are multiple listeners per radio set (NationMaster, 2015). It is also notable that these media penetration statistics stand against a backdrop of a paucity of economic resources. The Fiji Bureau of Statistics (2015) notes that 43% of the rural population in Fiji still lived in poverty in 2009.

The Importance of this Study

Fiji, along with many nations in the Pacific region, is also affected by some of the lowest rates of representation of women in government and media. In addition, Fiji, also alongside many Pacific nations, is also disproportionately affected by climate change, through sea level rises and extreme weather conditions.

In exploring the interaction between mobile devices and radio, femTALK, a female-run community radio station in Fiji aiming to enhance the status of local women, was selected in this study in order to understand the use of such tools for women's participation in community decision making processes, economic empowerment, access to education and health services and climate and environmental effects.

Initial investigations, in the form of a pilot (see Appendix A), were carried out at femTALK in March 2015 to investigate whether the interaction between mobile devices and community radio was indeed a phenomenon worthy of investigation, and subsequently whether this relationship or process had any effect on gender-specific empowerment. Following the pilot study (discussed in further detail in Chapter 3), which indicated the presence of an interactive process, a further research opportunity presented itself, allowing for the researcher to attend the

“Conveners Gatherings” held in Suva². This opportunity directed the conversation with femTALK to conducting the research study over Winter 2016 and carrying out further interviews and focus groups with the Conveners and other audience members during the gatherings and at other related venues.

Purpose and Contributions of this Study

Broadly, this study explores how Fijian women leaders generate knowledge that adequately reflects the realities of life in this community, and how that knowledge is applied in the promotion of community development and resilience. More specifically, this study examines the broad hypothesis that women in Fiji are able to develop alternative development paradigms through a participatory approach and realize an enhanced unified voice, using mobile phone-radio interaction.

The contributions of this research overall, include the following main findings. First it is noted that the monthly gatherings and mobile suitcase radio appear to contribute to a process of mutual support that develops capacity collectively for the women to address community issues; for example, access to scholarships, or economic initiatives. These mutually-supported venues and processes, assist in the development of voice, enhancing capability for the women to share these community issues in group spaces, as well as on media platforms. Collectively, these spaces (the mobile suitcase radio, monthly women’s gatherings, as well as “Radio with Pictures”) host a process of acclimatization, where the women leaders become increasingly comfortable in discussing community issues using the various media platforms. For example,

² With the February 2016 Tropical Cycle Winston in Fiji, femTALK was involved in rebuilding after the enormous devastation, which made it unfeasible for the field research to be carried out during that summer. Furthermore, there was flooding, from Tropical Cyclone Zena.

familiarity is developed when speaking on mobile suitcase radio in the interaction with an interviewer, and in responding to questions. This then leads to comfortable participation in a panel show on “Radio with Pictures.” Finally, one of the major findings of this research is the process of capacity development: something that allows the women leaders to participate in spaces that engages in learning in action. This is where media capacities and governance capacities are developed in a learning environment that suits not only the needs of the women, but also provides access to technologies readily available to them. There are also considerations in this study for alternative development constructs, and future research that might include a values-based development paradigm.

Statement of the Problem/Research questions

Thus when looking at the role of rural women’s empowerment processes using innovations in available communications technologies – the role of enhancing women’s participation in governance structures in the Pacific, as well as the climate change challenges in the regions, a series of research questions emerged after the pilot and associated investigations, and subsequently guided this study. These research questions are:

RQ1A) How do women in rural and agricultural communities in Fiji utilize mobile devices to interact with community radio?

RQ1B) What effect, if any, does such usage have on their realization of praxis, voice, and generation of knowledge as an alternative development paradigm?

RQ2A) How did and are women in rural Fiji utilizing mobile devices to interact with community radio in response to Cyclone Winston³?

³ A severe Tropical Cyclone (category 5), that was the strongest tropical cyclone to make landfall in Fiji and the South Pacific Basin in recorded history, in February 2016.

RQ2B) What effect, if any, did and does such usage have on mitigating the effects of Cyclone Winston and resilience factors?

Structure of this Dissertation

The next chapter in this dissertation will include a research framework that explores the conceptual framework and relevant literature for this study, including theories that critically examine development discourses; as well as communications and innovations theories in the context of Information and Communication Technology for Development (ICTD), with specific application to the Pacific region, Pacific women, the local environment, and Pacific media. The region-specific context and how it affects and pertains to this study remains an overarching theme in this dissertation. The literature review also contextualizes development and contemporary discourses, including those on climate change and resilience. The chapter will also have some continuing comment on the role of participatory communication theory as it relates to this study, a socio-economic introduction to Fiji and an introduction of the Research Questions.

Chapter 3 presents the study design and methodology followed and explains further how the research questions have been addressed, and contains a summary of the pilot study carried out and its results. In Chapter 4 there is a presentation of the study setting, including a background of femLINKpacific, the women's community radio station in Fiji that is the subject of the case study approach of this dissertation. There is a description of the women leader groups, who formed the population for the study focus groups, as well as a background of Tropical Cyclone (TC) Winston, an extreme weather condition which occurred as this research was being carried out. This is described in relation to the dynamic of community radio and mobile devices. There is also a short background of 'Radio with Pictures' a YouTube, TV, and

radio panel show recorded in the wake of TC Winston, and some of the main issues highlighted by the women leaders and Conveners in the series following TC Winston.

Chapter 5 contains the findings of the data collected from the interviews and focus groups in the context of the research questions, as well as further details of the purpose, features, impact, and challenges of femLINKpacific. The RQ contextualized findings include descriptions from the interviews and focus groups, and then the results and analysis of the primary communications technology platforms. This includes sections on Mobile Suitcase Radio, Women's Weather Watch, and Radio with Pictures, with background, some effects and challenges, and prominent characteristics and discussion on each of the platforms shared in the interviews and focus groups. There is also a section describing the women's group consultations, and some of the inter-ethnic features of the women's groups – both at the monthly consultations, as well as within the women's groups themselves, and their participating leaders. In the next section, there is comprehensive documentation of the role of femTALK and the communications platforms, and some narratives from TC Winston in relation to RQ2.

The discussion chapter then synthesizes some of the findings and presents overall reflections on the results including ideas of mutual support, voice, acclimatization and capacity development as well as the inter-ethnic and cultural features of the communications platforms and women's groups represented in the study. Finally, there is a conclusion, with a summary of the main findings, limitations, main contributions and future research.

Overall, this document presents a thorough description of the study and findings.

2 RESEARCH FRAMEWORK

This chapter explores the conceptual and theoretical framework for this dissertation. The paradigms of this theoretical framework are defined by the broad categories of Pacific-area relevant development discourses. This consists of the central concepts from Post-Development Theory – a critical theory of international development in general; contemporary discourses in communication and international development; Pacific women and the environment, including supporting literature on how gender equality relates to conceptualizing and realizing development; and Pacific media. The second categorization is that of constructive resilience in the Pacific context, including Inclusive Innovation, and Participatory Communications for Social Change in the context of Pacific development, both of which directly relate to Information and Communication Technology for Development (ICTD), as well as Mobiles for Development (M4D).

Pacific Relevant Development Discourses

Post-Development Theory

The traditional definition of “development,” introduced by President Truman in 1949, is based on the hegemonic post-World War 2 order and an extension of colonial ideology which perceives the Western nations as “developed” and “advanced,” and other nations as “developing” or “underdeveloped.” The definition appears to imply therefore that the “developing” nations are on a continuum by which they are advancing towards a defined “developed” status. This development discourse is founded on a Eurocentric perspective in which the West is perceived as the model toward which all other nations are “progressing.” The post-development framework critiques this approach and underscores its problematic nature, as well as introduces the idea that the development agenda (with Escobar (1992) referencing Foucault) is a discourse which has an

inherent power structure that acts as an instrument of “economic control over the physical and social reality of much of Asia, Africa, and Latin America” (p. 27). Post-development discourse proposes a radical alternative to the present development discourse, one that is based on a collective re-imagination through the emphasis on local culture and knowledge.

Willis (2011), noting how Post-Development Theory has been influential in analyzing power relations and emphasized discourse, outlines several criticisms of the post-development framework. Firstly, she notes that “the development that post-development theorists criticize is but a caricature of development today” (p. 207). Secondly, she notes that post-development theorists do not offer an alternative to the existing development paradigm. Finally, she comments that although development has not provided all that it has purported to, it has made tangible material progress in life expectancy, health levels, and education. Kiely (1999), questions the generalizations of non-Western cultures which are used to create a generalized anti-Western sentiment. Crucially, Kiely, rejects the notion of relativism, noting that “universalism is essential” with a “theory of justice which remains sensitive to difference” (p. 47), thus accepting the notion that some universal values and norms constitute “development.”

A pivotal feature of the development and post-development discourse, is the idea that communities, villages, and neighborhoods are empowered to make decisions about their destinies as well as to engage in consultative processes, again with decision-making power vested in the communities themselves. Rather than adopting solutions developed “elsewhere,” local populations adopt processes emphasizing local populations generating, applying, and diffusing knowledge. As Jussawalla (1999) notes, when looking at the way in which modern telecommunications are tools acceptable to indigenous and rural populations, with a less externally imposed non-empowering approach:

“while it has been acknowledged that traditional communications systems are used for development, it was generally felt by the participants that modern telecommunication technology is suitable and appropriate for improving the standards of living in remote rural areas.” (p. 11)

In the post-development framework and reassessment of the values of what development looks like, it may sometimes be helpful to define alternative universal development goals. As part of this discourse, measures may be considered that frame such dialogues, such as that of the United Nations Sustainable Development Solutions Network (SDSN). The SDSN produces a World Happiness Report which measures real GDP per capita, healthy life expectancy, having someone to count on, perceived freedom to make life choices, freedom from corruption, and generosity as its measures of Human Development (Helliwell et al., 2013). In addressing the centrality of local values without taking on a socially relativistic approach, the consideration of the position that “universalism is essential” in the promotion of social justice, some further considerations for measures could be included, such as those addressing gender equality, democratic governance and freedom from corruption, freedom from violence, freedom of expression and belief, freedom from prejudice – for example – racial or class-based prejudice, access to education, economic indicators measuring freedom from poverty and lessening of extremes between rich and poor, environmental sustainability, and health indicators (many of which are included in the Universal Declaration of Human Rights). Some of these scales, particularly inclusive governance, access to education, and freedom from poverty via economic empowerment, are included in the discussions of the effects of radio and mobile devices. The additional dimensions identified here may assist with evaluations in future research. Indeed, increasingly measures of community well-being, for example the Gallup-Sharecare Global Well-

Being Index (2018), place increasing emphasis on factors such as “Purpose: Liking what you do each day and being motivated to achieve your goals,” “Social: Having supportive relationships and love in your life,” “Financial: Managing your economic life to reduce stress and increase security,” “Community: Liking where you live, feeling safe, and having pride in your community,” and, “Physical: Having good health and enough energy to get things done daily.” These measures may also be utilized for future studies. Herrin et al. (2018) in particular, make note of some observations regarding the Gallup-Sharecare measures in relation to electoral patterns, and how well-being affects democratic processes.

Although not specifically a post-development discourse, but considered more of an evolution of contemporary development paradigms, the Institute for Studies in Global Prosperity notes that development discourses can no longer ignore the fact that the large majority of the world's population ascribe to values beyond material understandings of existence (ISGP, 2008). This parallels with the Sen's ideas, and is also described by Harrison and Huntington (2000) who all recognize spiritual values and principles at the individual and collective level, in such a way that development needs to recognize the human desire to “promote a process of social change that engenders compassion, cooperation, rectitude of conduct and justice” (ISGP, 2008, p. 2). Karlberg (2004) describes, in the structural context, that social orders based on competition rather than collaboration, which have defined realms of education and commerce and so on, have been seen to be severely lacking and misrepresent the historical trajectory and potential where true development and social progress can and have taken place, with increasingly complex forms of co-operation and collaboration defining key elements of advancement. Specifically, regarding technology, Weinberg and Nouredin (2015) note that “A technology is not merely a system of

machines with certain functions: rather it is an expression of the social world” (p. 1), which as such, requires the integration of the values of those creating and utilizing technologies.

“Any tool can be used productively or destructively. Human value systems determine whether technical innovation advances or harms human well-being. However, the most serious consequences of technology are often quite subtle. The rapid adoption of new technology, without reflection about possible impacts has sometimes disrupted longstanding social and cultural patterns, where entire domains of meaning and purpose of traditional cultures are displaced.” (Weinberg and Nourredin, 2015, p. 1)

In reflecting on this dynamic, Weinberg and Nourredin (2015) propose the utilization of structures of local participatory mechanisms which allow for community-based consultation and reflection on the adoption, utilization, and effects of technologies.

Contemporary Discourses in Communication and International Development

In current discourses surrounding the use of communications in international development, several essential dimensions are apparent.

Firstly, as Amartya Sen in “Development as Freedom” (Sen, 1999) and others (Robeyns, 2011; Frediani, 2010; Dinerstein, 2012) identify: when the idea of development is solely based on material, economic progress is limited. Sen, one of the most influential figures in current development discourse, identifies factors in development, and as others have noted, promotes the idea of development as enhancing and building human capacity and free societies. As Sen(1999) notes,

“The substantive freedoms include elementary capabilities like being able to avoid such deprivations as starvation, undernourishment, escapable morbidity and premature

morbidity, as well as the freedoms that are associated with being literate and numerate, enjoying political participation and uncensored speech and so on.” (p. 36)

Continuing this approach, Sen describes these freedoms further, including firstly, political freedoms through free choice to decide who governs, and the existence of a free press, noting that even in a rich country, if there is limited freedom to express one’s views openly, then that is a type of “poverty.” Secondly, he elaborates on economic freedoms for rights to consumption, production, and exchange; thirdly, social opportunities, including social provisions for health and education. And fourthly, transparency guarantees, that ensure people’s need for openness. Finally, protective security, which ranges from unemployment benefits to famine relief. Sen furthermore defines the connections between these freedoms; for example, where he points out that the provision of access to education has a corresponding impact on the reduction of infant mortality. Contrasting India and China, Sen shows how despite both countries having moved towards marketization in the 1980’s, China was able to experience marked economic growth because of existing access to health and educational resources, compared to India. However, he also notes that the limitations, in contrast, would be apparent, with the lack of democratic freedoms in China. This has also ensured that India has not suffered widespread famine, which China had with the Great Famine. Noting another contrast between Sri Lanka, Kerala, and China, in comparison to Brazil or Namibia, Sen points out that significant increases in life expectancy are apparent in the former, even though the latter have higher income levels, which he attributes to the emphasis on education and healthcare. In this regard, Sen notes that the labor-intensive fields of education and healthcare are achievable despite lower incomes and the emphasis placed on these sectors. Finally, Sen provides a historical example of factors that contributed to development in the UK during World War 2. Despite this period of lessened

access to economic resources and a war-engulfed economy, Britain was able to bring about original social structures that eliminated extreme undernourishment and significantly reduce malnourishment during this time frame, all within the wartime psychology.

Paul Collier (Collier, 2008), another noted figure in development discourse also highlights structural factors that limit development, including corruption in particular, which has challenged the growth of many nations by not allowing the economic flow of resources as a result of the exploitation of natural resources in a country to be invested back into the country. Collier makes suggestions for international norms and structures that would create a framework for policing corruption among nation states.

As Johnson (2001) explored with a study of the impact of television in rural India, specifically regarding the role of communications technology in development, he questioned Rao's findings (1966) that hierarchy and traditional structures are the central determinants of change, as opposed to the influence of increased access to media and communications technologies. Through ethnographic research in India, and taking into account the features of television, including the wide availability of TV programming and low cost sets, the expanding scope of television, as well as "the benign presence" of television, with the viewer in command of when and where to watch, he identifies three ways in which there have been social restructuring in India – politically, socially and economically. Firstly, politically, he notes that using the medium of television, village power, something formerly based on heredity and economic influence has been altered because of the increasing democratization of access to information, which was formerly controlled. In the same way, village life which was controlled by the elders is now being challenged by villagers becoming more aware of municipal and district courts, to which they now take their grievances; and all this through TV programming.

Economically, Johnson(2001) shows how the normalization effects of television have encouraged the development of an entrepreneurial class and spirit, and much more diversified village economies and land trading, which is in direct contrast to a time before media penetration when the village landlords controlled land and economic activity. Socially, Johnson(2001) observes that the lack of limitations on literacy or education levels on watching television, has enabled new social spaces in community life, where men and women of different ages can now share a communal space in the viewing of television. He uses the example of Dilip, a young male villager to show the contrasts, pointing out that Dilip wears Nike shoes and has posters of the latest TV actors from around the world in his room, but at the same time has a statue of a Hindu god on the other side of the room, and hopes for an arranged marriage. Johnson does note challenges, namely linguistic hegemony, migration, and an information underclass, whereby through the use of TV, English and Hindi have become the de facto languages, complete with the associated values that are transmitted as a result; as well as migration to cities in search of lifestyles depicted on television; and a media divide, with an excluded section of society without access to TV. Johnson finally notes that:

“Almost four decades ago Wilbur Schramm observed that for ‘development’ to occur, ‘we must share information, and we must share it widely.’ He saw the mass media as ‘magic multipliers of information’ And although Schramm was most interested in the ‘informational’ content of the media messages, others agreed that all media content could have potential modernizing effects.” (p.164)

In similar research, Jensen & Oster (2007), also describe how with the adoption of cable and satellite television, there have been large improvements in women’s status, including “increases in reported autonomy, decreases in the reported acceptability of beating and decreases

in reported son preference” as well as “increases in female school enrollment and decreases in fertility.” (p.1) Scrase (2002) and Fernandes (2000), provide similarly supporting evidence from India and Brazil in favor of the findings, of the role of media development in transformation of the middle class and globalizing effects.

Finally, Lin et. al. (2015) describe some of the challenges of ICTD projects through the lens of postcolonial theory, in which ICTD projects that may appear to have positive outcomes, in fact are problematic in their outcomes in relation to the impact on indigenous cultures. Looking at the implementation of an ICTD project, through the provision of used computers and connection with an international student collaboration program at an indigenous school in Taiwan, Lin et. al. note how characteristics such as paternalism and hegemonic mainstream discourses in fact disempower indigenous communities, where effective consultation with the indigenous community is not integrated, and consideration for indigenous characteristics are not adequately integrated into the solutions devised. Examples such as digital illiteracy, limited English skills, and costs involved with international travel and computer maintenance are discussed, with final proposals for future research that considers the renaissance of indigenous cultures and how ICTs might “play a part in such initiatives” (p. 711).

Inclusive Innovation

Technological development, as has been discussed, may not occur in a linear fashion. Indeed, with the advent of mobile technologies, many other technological and infrastructural developments have leapfrogged traditional development paths, and through necessity, innovation occurred utilizing the tools available. The concepts that can inform the study of the development of innovative applications of technology to the social reality of some communities in the Pacific can be drawn from Inclusive Innovation (Heeks et al., 2013).

Inclusive innovation has also been described by Heeks (2013) as “the means by which new goods and services are developed for and/or by the billions living on the lowest incomes,” which is defined as less than \$2 per day. According to World Bank (2012) statistics, there were 2.4 billion people in 2010 who lived with this amount (Foster and Heeks, 2013; Heeks et al., 2013; George et al., 2012).

Heeks et al. (2013) define the central concepts of inclusive innovation as conceiving of “development in terms of active inclusion of those who are excluded from the mainstream of development” – primarily focusing on “the poor” (p. 1), those living with less than \$2 a day, and defining inclusivity as those aspects of innovation within which there must be inclusion, with varying perspectives of “giving rights, voice, capabilities, and incentives for the excluded to become active participants in processes of development and innovation” (p. 1).

Some of the limitations of this “inclusive innovation” approach however, are the overemphasis of some sources on the idea of the base-of-pyramid population solely as a market for adapted products from multinational corporations and non-governmental organizations (NGOs), thereby minimizing the role of the population in question as a source of supply-side and creative innovation. For example, looking at the role of innovation in the way in which products are consumed and utilized, rather than on how new applications or techniques of production are developed. Therefore, the emphasis is placed on the demand side of innovation and market-driven approaches, rather than on consideration of the development of technical and production capabilities, which may also be worthy of consideration. In addition, there are the educational and empowerment processes, as well as the institutional infrastructure development that all emphasize innovation development rather than innovation absorption. As Foster and Heeks (2013) note, research that has been carried out in countries where inclusive innovation has been

adopted, has a greater emphasis on demand-led indicators. For the Pacific region, extreme poverty is not necessarily a condition that exists, but, features of inclusive innovation can be utilized in poverty alleviation, beyond extreme poverty (below \$2 per day).

ICTs and the way they are used is a central concept in this dissertation. However, the ways in which they are used differ drastically, and this variation correlates with demographic factors like gender, race, age, etc. The next section describes Pacific women and their relationship with the environment, providing the necessary context for the population under study in this dissertation.

Pacific Women and the Environment

There is no doubt that the empowerment and equality of women are both fundamental to the progress and “development” of any nation, region, or indeed human civilization, as has been supported by evidence from the United Nations (UN), World Bank, numerous NGO's and Nobel laureates, to name a few (United Nations Research Institute for Social Development, 2005). Not only is the empowerment of women a principle that is just in itself, but it is also essential for the progress of men and communities in general. Gender equality, therefore, is foundational for authentic development, and furthermore, mainly related to one of the most significant current challenges facing the Pacific – the voice (of women) as an avenue of engagement in the processes of addressing climate change.

As Best (2007) notes, referring to a statement by United Nations Secretary-General Kofi Annan (2005), “the empowerment of women is the most effective development tool” (Best, p. 140). Thus, this study is centered on the application of ICTD approaches to rural women’s empowerment, an area where the digital divide is particularly wide, and how this empowerment addresses various perspectives on development as well as the issue of climate change. Best

continues to state that with regards to ICTD approaches that consider women, specific attention needs to be paid to developing tools that address the specific needs and requirements of women, particularly bearing in mind patriarchal societies where women juggle roles of family, breadwinner provider and caregiver. Best further points out that providers of ICT services need to reflect on the cost of services, the location, management, and the design of ICT tools, to allay concerns of the women and their families. Also, where an operator is required for the ICT tool or service, he or she must be prepared to pay attention to women's issues and support an atmosphere that is comfortable for women.

Regarding statistical indicators of the gender digital divide, Hafkin and Huyer (2007) highlight the fact that, “Where the gender digital divide is generally thought to be most marked, virtually no official statistics are available, and the digital divide is hardest to document” (p. 27). They continue to note that as education levels rise, the gender digital divide narrows, such that when young women are educated to secondary level and beyond, there is no gender digital divide. However, they further note that there is a usage gap, whereby women tend to use technology as users rather than in professional roles, for example using cell-phones for personal and social use rather than work-related activities.

After analyzing datasets from Africa and Latin America from 2005 to 2008, Hilbert (2011), concludes that in fact a digital gender divide exists only as a direct reflection of existing gender-related inequalities, and that policy actions should make use of the natural communication skills and media capacities of women, as well as their proven embrace of the new digital opportunities to overcome longstanding gender inequalities (p. 22). Gender equality, therefore, reflects existing disparities in the context of voice, promoted through communications technologies. In addressing these disparities, one approach may be to reflect on where Pacific

women's voices have been realized, including in the context of building peace, as described by Nicole George (2011), whereby the voices of women in the Pacific have taken roles in the advancement of the cause of peace in the region. While identifying the voices of women in promoting a nuclear-free Pacific, she notes that since the 1960's, "women activists were pivotal in promoting community and political awareness of the costs of the Pacific's nuclear presence as well the broader issue of foreign powers' military activities in the region" (p. 43). Furthermore, George notes, "since the 1980's; women activists have confronted numerous localized threats to peace, including intertribal violence in the Papua New Guinea highlands, civil war in Bougainville, repeated coups and outbreaks of inter-ethnic conflict in Fiji, pro-democracy rioting in Tonga" (p. 45), and more. Finally, these examples also represent a realization of the regional solidarity of women's voices, supported by Hau'ofa's oceanic identity or Teaiwa's Pacific "fluidarity" (George, 2011).

Finally, population pressures are a result of both educational and economic factors. Many nations with high educational opportunities have seen a reduction in fertility rates, with a recursive impact on educational outcomes. Some challenges faced in some regions of the Pacific indicate a culture whereby increased numbers of children are seen as economic insurance for the provision of family-earning potential. An oft-repeated statement is that with more children, possibly one or two may be able to get a good education, and get a good job to provide for the family.

In enhancing the voice of Pacific women through communications technologies, the history and stories of different communities are also possible to be shared; and shared cultures, experiences, and perspectives may be identified. The role of this may be, as Rodman (2004) states the "objective of exploring entwined and divergent histories can be able to increase

understanding of colonial experiences that affect ongoing labor, gender, familial, and race relations” (p. 247). And nowhere is this recorded as well as in the local media. The next section of this literature review provides an overview of the mass media scenario in the Pacific context.

Pacific Media

In the context of Pacific media and development, a number of considerations can be identified. The first consideration for Pacific media and development is with regards to human rights. The Pacific region, with a colonial history, has a problematic relationship with the ideas of development, which in many ways carry institutional, behavioral, and structural practices which embody a power discourse reflecting dependency on former colonial powers. As Shameem (2008) notes, “the notion of development has been linked to racial typology, concepts of civilization and technological advancement to which, apparently, only some nations can lay claim” (p. 137). In this regard, we can, therefore, consider two aspects of development related to human rights. Firstly, the colonial and outdated concepts of development, which were solely based on economic growth, and dependency relationships that occurred because of that paradigm have been replaced with a more holistic approach of “gender-sensitive and anti-poverty policy initiatives, as well as redistribution of wealth to increase incomes for the poor and encourage participation in wealth creation” (p. 141). Furthermore, in the Pacific context, collective rights are prioritized over individual rights, and although this is changing, balance in media needs consideration of the protection of both group and individual rights (Shameem, 2008).

Secondly, as Middleton (2008) comments, one of the issues facing Pacific media is the creation of spaces in which both women’s voices and fair representation of women are given equal status in media development. Middleton (2008) continues by relating this in terms of other areas in the Pacific, where there is gender-based parity or disparity. In terms of education, she

notes that in the Pacific, while boys and girls receive equal education for the most part, and have achieved “equality or near equality in several Pacific Island countries” (p. 48); in some areas, particularly Melanesia, girls’ participation drops after some primary education. Domestic violence perpetrated against women, ranging from slapping and kicking, to burning or raping is widespread in the region. UNICEF (2006) further notes an “alarming degree of incest” in Fiji, Kiribati, Papua New Guinea, the Solomon Islands and Vanuatu, which is further shrouded in secrecy. Middleton further notes that, “poor maternal health is a serious concern across the Pacific, with maternal mortality rates (death rates once a woman has become pregnant) running at an estimated 440 per 100,000 live births” (Middleton, 2008, p. 45), whereas in Australia and New Zealand the rates are 6 to 7 per 100,000. In terms of community governance, the Pacific region has some of the lowest rates of female representation worldwide. According to PacificWomen.org (2014), the number of women in Pacific national parliaments ranged from a high of 12.6% in Fiji to 0% in Micronesia, Palau, and Vanuatu, compared to a world average of 22%-23% (Inter-Parliamentary Union, 2016).

Thirdly, the Pacific region receives the world’s highest per capita amount of aid money (Rodrigues, 2008). However, Rodrigues (2008) notes that “critics have often argued that donors push their own agenda, sometimes to the detriment of local needs” (p. 199). Thus, where participatory communications for social change are introduced, another area of specific relevance is participatory development, whereby a two-way communication mechanism enables reporting of issues from villages and communities to centers of power, as well as development activities being reported by the governments in the Pacific region.

Fourthly, as Barr (2007) notes, defining poverty can include not having a decent home, lack of full-time employment, inability to send children to school, lack of nutritious food, lack of

access to medicine, feelings of humiliation, being voiceless and powerless, and feeling helpless or hopeless. Using Fiji as the case study, Barr (2007) continues to note that, in 2002/2003, 34.4% of the population of Fiji lived below the poverty line, and most people in poverty lived in the rural areas. Further, citing the Pacific Human Development Report from the United Nations Development Program (1999), he noted that there was significant income inequality in Pacific nations, as well as conditions of extreme poverty in Papua New Guinea and Fiji. Furthermore, global trends towards the extremes of the free market and deregulation, particularly in the context of development policies from the “cookie-cutter” policies of international organizations, have, as with trends in many countries and in the global economic system, created greater income inequality in the region. With regard to poverty and the media, Barr (2008) concludes that while stories that describe individuals overcoming adversity or facing challenges in feeding their families or finding a job are important, stories about “issues” with an in-depth discussion of injustice in employment, squatter settlements, etc. should also not be sidelined. This is an area of relevant concern for this dissertation in the context of how various technologies allow not only for the expression of a diversity of voices in the media but also how various tools and processes enable discussion of “issues” pertinent to an often-excluded population in the media.

Fifthly, as Papoutsaki and Harris (2008) describe, frequently in media across the world, the stories and content that dominate the news, TV, and newspapers are content from industrialized nations. It is more likely that stories and entertainment etc. are from a completely different part of the world, as opposed to from neighboring countries. Thus, in the context of the Pacific, this dissertation is interested in the content that is locally and regionally produced.

Penultimately, looking at ICTD in a Pacific context, a number of obstacles (Borg, 2008) exist in its development in the region. Prices and rates remain some of the most significant

obstacles as are both connectivity and hardware. Literacy factors include the high concentration of internet content in English, even though the “most widely used language in the Pacific is English” (p. 211). Digital literacy is another factor, referring to the ability to fully utilize technology tools; and local content factors need to be also considered. There is very little local Pacific content, either online or in local media, as already mentioned.

Finally, Harris (2008), using a case study approach, along with a participatory action research methodology for video workshops on training women on the use of video technology for small income generation schemes, initially highlights the main features of a participatory methodology whereby the “participatory methodology is people-centered, process-oriented and contextualized in a local setting utilizing local knowledge. Participation of communities in message-making is essential” (p. 188). Participatory video approaches are noted, whereby video is used to develop participants’ confidence and self-esteem via therapy, and is used to bring about social justice through activism. Through this empowerment, the people and development communicators realize their full potential, as well as collapse the boundary between subject, producer and viewer. Accordingly, many of the ways in which the use of community radio operates, as well as the ways in which audience members use mobile devices to interact with them, reflect the three video participatory approaches outlined here, as well as the people-centered and process-oriented localized context. Harris’ case study and participatory approach are implemented in Fiji, where she notes that radio is the most popular mass media source with programming, including news, weather, community information and discussion shows; in Fijian, Hindi, and English. She notes that there has been “over the past decade a steady growth in community media” (Harris, 2008, p. 192), as opposed to commercial television with mainly Western programming. Her discussion further highlights the importance of social capital, where

using a study-action-reflection cycle, women in her case study could participate in networks, impacting the participatory video workshops (Harris, 2008). Essentially relevant to this dissertation study, she concludes that “when communities actively participate in the communication processes, they learn to engage with each other, thus improving their understanding of the other and the underlying concerns which drive their action” (Harris, 2008, p. 201).

Participatory Communications for Social Change

Servaes (2008) notes that “participatory communication stresses the importance of cultural identity of local communities and of democratization and participation at all levels – international, national, local, and individual.” In ensuring that the conceptual framework for this study truly represents the indigenous “voice,” the theoretical assumptions need to be those that recognize and value the perspectives of those that have traditionally been denied representation in many academic contexts, as well as in other spheres. This includes the representation and recognition of the generation of knowledge by such communities – particularly in the context of “Praxis,” for example, the representation of Pacific voices in academia, as well as Pacific voices in a media context, which have been dominated by western voices because of colonial legacies.

Initially describing “Praxis” as “reflection and action directed at structures to be transformed” (Freire, 1970, p. 126), Huesca (2003) further defines praxis as “self-reflexive, theoretically guided practice” (p. 209), as opposed to the primarily externally imposed development practices prior to the 1970s. Development can be considered insufficient where the concepts and objectives of the practice are formulated “elsewhere” and since the 1970s, the participatory communications approach, which is largely based on concepts defined by Freire, has been offered as one methodology. Citing Freire (1970), Huesca (2003) notes that in

modernizing development, the traditional approach of distanced teacher-student and development practitioner-subject, is replaced with a participatory approach in which collaborators “identify needs, problems and guidelines for action” and similarly, in the praxis approach, “people serve as their own examples in their struggle for and their own conquest of improved life chances” (p. 80). Similarly, in the community informatics framework, there is emphasis on the way in which ICT tools are “available for use in and by local communities,” where “ICTs are appropriated by the marginalized to realize a new role for themselves in the information society” (Gurstein, 2007, p.9) through dynamism and adaptation in organic communities. Furthermore, in this participatory paradigm, a dialogical approach is favored, also discussed previously in this literature review, under “post-development theory,” by which, as Freire argues, subject-object interactions are replaced with dialogue. Thus, we can see that in current development practice, there has been a rise in “empowerment” approaches facilitated by community consultation methods which identify challenges in the community, and promote means by which the community itself can reflect and act to overcome those challenges, with the development practitioner either providing the space for this reflection to take place, something that may not have previously been possible, or in some cases using a technology-facilitated intervention. Current development discourse stands in direct opposition to the previously “paternalistic” approaches, which were centered on a distanced and hierarchical approach rather than the “mutual-learning oriented” approach. Srinivasan (2012) goes on to note that “what would be important then would be the study of interventions that empower emergent grassroots voices and aspiration” (p. 27) and, again citing Freire, states the importance of praxis whereby “voice” is realized by community members, as co-creators.

Expanding on this, Srinivasan (2006) comments that praxis, “the act of reflection that dilutes the hierarchical and predefined student-teacher relationship into one of co-producer,” (p. 356) describes the participatory approach in which the teacher and the students co-create knowledge (Freire, 1970). In this case, the empowerment and dialogical process seek to affect transformation in a community based on a facilitated community consultation process, rather than simply the transfer of information with the concept of community and individual “voice” as critical factors.

Srinivasan furthermore identifies criticisms of participatory approaches, namely that the development agenda is reified via participatory approaches (Cleaver, 1999) and that there is a limitation of being unable to adapt these participatory approaches to more far-reaching programs with broader impact. Leye (2009), discussing community empowerment approaches mainly carried out by UNESCO, questions the ability of such approaches to facilitate transformation while disregarding structural issues and highlights the need for policies that implement structural transformation in overcoming social and economic inequality.

Constructive Resilience in a Pacific Context

The United Nations (2014) and others, recognize the importance of the voice of women in addressing climate change and in the context of resilience, “to ensure that weather and climate services reduce women’s vulnerability to disasters and climate change and help them realize their potential as champions of community resilience” (p.1). This, when connected to the inclusive innovation ideas already presented, includes effective responses to circumstances, beyond the protagonist’s control, that effectively address and engage in problem-solving of those conditions, which in this case, includes mitigating climate change, as well as addressing structural inequality. Holing (1973) defines resilience as the continuity of networks in a system

and the capacity for such systems to be sustained, and persist, where there is a change in state, driving and parameter variables. Barnett (2001) notes, with regard to resilience in the Pacific that historically the Pacific Islands have been able to meet the demands of historical climate extremes. However, the “possibility of increased frequency and/or intensity (of climate disasters and change) now most concern policymakers” (Barnett, 2001, p. 986). Barnett continues to note the importance of collaboration and interdependency through marriage and trade throughout the Pacific region, as well as the diversification of food and food security in the region as key processes for the promotion of resilience; and concludes that a number of priorities, the first two of which are key to the intended research for this study which are to, “increase the availability of information necessary to understand the biophysical and social environment” (Barnett, 2001, p.987) and “the capacity to distribute this information in all directions throughout the society” (p. Barnett, 2001, p. 987). The most contemporary concern of the role of resilience in the context of the Pacific worthy of consideration includes resilience for sea level rises and extreme weather conditions, such as the flooding and recent Tropical Cyclones in Fiji. Nunn (1994), for example, notes that, in Fiji, “sea-level rises alone will clearly have a negative effect on agricultural productivity” (p. 106), as much of the farmed land is near the coast or rivers, which would be affected.

Gaillard (2010), of the University of Grenoble, discusses the broader themes of vulnerability, capacity, and resilience, firstly by defining each theme. Gaillard (2010) defines vulnerability as the “susceptibility to suffer damage in a potentially dangerous event, either natural, economic or political”; capacity as “resources and assets people possess to resist, cope with and recover from disaster shocks they experience”, including “traditional knowledge, indigenous skills and technologies and solidarity networks”; and resilience as “the ability of an

actor to cope with or adapt to hazard stress” (Gaillard, 2010, p. 220). Berkes and Jolly (2001) also define three characteristics of resilience, measuring the "the amount of change a system can undergo and still retain the same controls on function and structure, the degree to which the system is capable of self-organization, and the community's capacity to build and increase its capacity for learning and adaptation" (p. 2). Gaillard (2010) emphasizes the role that local communities play in determining resilience, particularly in terms of government-based programs and activities at the local level that respond to climate change adaptation, and the role of integrating scientific communities and local government efforts, utilizing academic knowledge and practical responsibilities of local community actors.

Finally, specifically looking at resilience in the context of climate change in the Pacific, Barnett (2001) continues to note, and particularly relevant to this study, the importance of the ability to mobilize social networks in response to climate-based hazards and disasters as well as factors, in particular, like designing slackness, redundancy and speed of supply into social systems (respectively the buffering, redundancy and high flux principles) (Handmer and Dovers 1996), and the decentralization of decision-making (the flatness principle) (Blaikie et al 1994). Other strategies which enhance resilience to disasters include: mobility, including ability to relocate temporarily and permanently; diversification of supply of food, fiber and income (the omnivory principle); mobilizing social networks and systems of redistribution (the whole insures the parts); alleviation of absolute poverty; learning from past events and changing practices; transmission of knowledge across space and time; experimentation and innovation; and sustainable intensification of resource use (after Adger 1999, Blaikie and Brookfield 1987, Blaikie et al 1994, Burton 1996, Handmer and Dovers 1996, Mortimore 1989).

Of particular note in this regard is the role of anticipatory learning for climate change adaptation and resilience, which is the title of Tschakerts and Dietrich's (2010) paper, highlighting this approach as opposed to "learning by shock."

The theories described thus far in this literature review form a strong foundation for arriving at the findings for this study, and a synthesis of this foundation is helpful. Thus, a summary of the theories described in this research framework section is provided in Table 1.

Theory	Literature	Critique
Post-Development Theory	Eurocentric development, linear continuum of development, inherent developmental power structure. (Escobar, 1992), (Helliwell, 2013), (Jussawalla, 1999), Ziai (2007), Matthews (2004), Storey (2000)	Caricature of modern development (Willis, 2011) No alternative (Willis, 2011) Significant material improvements (Willis, 2011), (Kiely, 1999), McGregor (2009), Pieterse (2000)
Participatory Communications for Social Change	'Praxis', indigenous voice, use by and for local communities. (Freire, 1970), (Huesca, 2003), (Srinivasan, 2006, 2012), Morris (2003), Jacobson (2003),	Lack scalability (Cleaver, 1999) Structural inequality (Leye, 2009)
Inclusive Innovation	Goods/services developed by/for those living on lowest incomes, active inclusion of technological development. (Annan, 2005), (Best, 2007), (Hilbert, 2011), (Heeks et al., 2013), (George et al., 2012), Altenburg (2009), Utz (2007), Guth (2005), Sonne (2012)	Demand-side innovation market (Foster & Heeks, 2013)

Table 1: Theoretical Framework Summary

Keeping this theoretical framework in mind, this study provided a look at the way in which resilience to inequality in governance structures and the occurrence of an extreme weather condition, was performed through innovation in socio-technical networks, utilizing community consultations, participatory radio, and mobile device technology. In terms of content, the approach furthermore determined development paradigms that were defined by the women, particularly in the context of peace and the role of economic and climate security, and the

decision-making processes that facilitate this state. The role of contributing to discourses in this regard was assessed in terms of highlighting under-represented ‘voices’ for social change.

All of this leads to a definition of the research questions for this study, which are elucidated in the next section.

Research Questions

The purpose of this dissertation is therefore to determine how and if the praxis and “voice” for rural women in the Pacific, who use mobile devices to interact with community radio is enhanced. There is a definite paucity of research in this area, which this study aims to remedy. This study also examines how Pacific women’s use of technological tools and processes provide an alternative paradigm for development, and seeks to highlight examples of inclusive innovation, which cumulatively also serves as the nexus of a gap in literature seeking to be addressed.

The primary research questions for this study are:

RQ1A) How do women in rural and agricultural communities in Fiji utilize mobile devices to interact with community radio?

RQ1B) What effect, if any, does such usage have on their realization of praxis, voice, and generation of knowledge as an alternative development paradigm?

RQ2A) How did and are women in rural Fiji utilizing mobile devices to interact with community radio in response to Cyclone Winston⁴?

RQ2B) What effect, if any, did and does such usage have on mitigating the effects of Cyclone Winston and resilience factors?

⁴ A severe Tropical Cyclone (category 5), that was the strongest tropical cyclone to make landfall in Fiji and the South Pacific Basin in recorded history, in February 2016.

There has been significant amount of research conducted on the use of ICTs in disaster management. However, this is sadly lacking in the context of Pacific Island nations as a whole, or Fiji in particular. This is odd, especially when considering there have been many natural disasters/cyclones that have impacted Pacific Island nations in the past 10 years. In light of the growing concerns about the effects of global warming and sea levels rising, such research is especially useful. Thus, it is imperative to build the body of knowledge on the impact of natural disasters and the use of ICTs in these vulnerable areas.

The next chapter will address the way this study has been conducted, in terms of its methodology, and establishes the reliability and validity of the study and describes the population under study.

3 STUDY DESIGN & METHODS

This study provides an examination of the socio-technical system of a women-run community radio station to understand how women in Fiji use community radio and mobile devices to enhance women's participation in governance structures and resiliency to extreme weather conditions. Interviews were carried out with radio station staff and Conveners of the station, as well as focus groups (self-identified as Talanoa) were conducted with the women leader groups. This chapter provides an overview of the study design, along with a description of the procedures.

A qualitative approach was utilized to explore the research questions, comprising a pilot and a three-phase process: staff member interviews (phase 1), Convener interviews (phase 2), and audience member/women leader focus groups (phase 3). For each phase described in this chapter, it is noted why this method is most appropriate to investigate the research questions, and a description of the participants, sites, procedures, and data analysis are provided. There is some elaboration on the pilot study, as well as the Pacific research context, while research ethics and protocol for this study are stated.

The use of a qualitative method was seen as most appropriate for this study, as it allows for the use of shared narratives of the study participants, namely the radio station staff and women leaders. These narratives consist of the ways in which the women leaders and the staff members actually utilized mobile devices to interact with the community radio station. By utilizing the interview-and-focus-group method, an exploratory method was implemented, ensuring that the study was participant-centered rather than researcher-driven – and moreover, less driven by expectation of what results would be found, and more driven by actual usage and participant perspectives.

The coding process involved taking a look at the exploratory topics that were identified in the interviews and focus groups – and were highlighted by the participants. Again, the coding drew from the categories and topics that were defined as most crucial by the participants and were repeated by many participants. This means that the categories further described in each phase process, were those that emerged and were defined through repeated narratives of the participants, as well as those narratives that were key determining dynamics. For example, one category, “Radio with Pictures” derived from the “National Development Plan – Health” – which was a topic that was often repeated on various episodes of “Radio with Pictures” and was a topic of discussion that was easily categorized. Less definitive and clearly stated as a category, however, was that of “Peace” comprising statements made during the interview process that were based on definitions and statements of peace made by the radio station staff.

Pilot Study

In March 2015, interviews were carried out with femTALK to ascertain whether there was any kind of interaction between mobile devices and the community radio station. Full details of the pilot study can be found in Appendix A. Interview questions were developed that explored the processes (see Appendix B), of the interaction between mobile devices and femTALK; with questions for both femTALK staff members and audience members. In addition, impacts, of such an interaction, were explored in the context of educational, agricultural/economic, and community decision-making access effects. Due to limitations of access to audience members on the trip to Fiji, only key staff members were interviewed. The interactions explained mainly “Mobile Suitcase Radio,” which is a mobile platform taken out to the villages around Suva; the location of femTALK; and women’s stories; and the songs that were recorded and broadcast from the mobile suitcase platform. Secondly, another primary process identified was that of

”Women's Weather Watch” in which women Conveners in various villages around Suva would text in to femTALK to describe in a meaningful way the weather conditions in their area, for example “the river is flooding in (location)” etc., which can then be rebroadcast on air. Some of the limitations on using mobile devices to interact with the radio station included those on credit or access to power, and a network signal.

Thus, through this pilot, it was determined that there is indeed an interaction between community radio, femTALK, and mobile devices, beyond just mobile phones. Some of the impacts described from this interaction included the broadcasting about the lack of access to electricity or water supply in villages; a broadcast through mobile-suitcase radio, which was then picked up by mainstream media and heard by policymakers. This resulted in electricity or water supply being provided to the village. Other impacts were also revealed through the interview process, that went beyond the function of mobile device-radio station interaction, such as the way in which village women's gatherings create a space for sharing about scholarships or agricultural practices for women in the villages. Finally, two regionally specific processes were identified in the analysis of the pilot. Firstly, that the phenomenon of the Mobile Suitcase Radio is one that parallels an older practice – walkabout cassettes. In the 1970s, cassette recorders were taken around Vanuatu, and stories and songs were recorded, which were subsequently broadcast over national radio, ultimately leading to the realization of a Vanuatu national identity and subsequent independence (Bolton, 1999). A second parallel identified was the use of model lives and individual stories that previously featured in the national Fijian newspaper, highlighting values such as hard work in the individual stories mirroring national values. Mobile Suitcase Radio similarly highlights individual stories. Further exploration of other dynamics that can determine a Fijian or possibly Oceanic/Pacific media culture becomes possible, when these

parallels are factored in. Possible strategies for improvement from the pilot that were identified included, ensuring questions steered away from positive bias, and identifying those processes described that were not fundamental parts of the interaction between mobile devices and the station, such as village women's gatherings.

The former offices, where the pilot was carried out, are shown in Figure 1. The former radio studio is shown in Figure 2. The new offices are shown in Figure 3. These photos highlight, and provide graphical representation, of the simplicity of the radio studios and the physical resources of femLINKpacific.



Figure 1. Outside sign at former femLINKpacific offices in Suva, Fiji.



Figure 2. Former femTALK radio studio in Suva, Fiji.



Figure 3. femLINKpacific office in Suva, Fiji.

Study Design

This case study of the media outlet, femTALK89.2FM, examines the organization's effectiveness in achieving their goals of increasing women's participation in the peace and

security sector, increasing women's visibility and issues of interest to women in decision-making forums, and their resiliency to extreme weather conditions, using interviews with the femTALK staff and Conveners,⁵ and focus groups with women leaders. femTALK89.2FM is the community radio station of the feminist community media organization femLINKpacific (which may be found at <http://www.femLINKpacific.org.fj/>), established in 2000, and has worked towards the promotion of UN Security Council resolution 1325, "Women, Peace, and Security,"

Staff member interviews following the pilot (see Appendix A) were extended with further questions (see Appendix C) for Phase 1. Interviews with the women Conveners constituted phase 2, and the women leader focus groups in various villages constituted phase 3. FemTALK holds regular women leader meetings, where women leaders in various villages around Suva are invited to femTALK to share stories and talk about experiences with femTALK, as well as engage in capacity building and training programs with the Conveners. On the first visit to Fiji in March 2015, the principal liaison at femTALK provided an invitation to return to carry out the focus groups with participants from the women leaders meeting.

As Lincoln et al. (2008) note, "Many non-Western and non-English speaking scholars express the need for supporting a methodological approach that foregrounds the voices of nationals and locals (or indigenous peoples)" (p. 784). The choice to use interviews, as well as focus groups, assists with the emphasis on this perspective by directly recording and highlighting the views of the participants themselves. In addition, one of the advantage of both methods is the chance to be in a space together to probe responses and explore questions to a greater depth, again, thereby directly highlighting participant voice. As Jamshed (2014) notes, interviews are

⁵ Conveners are female points of contact, and resource individuals, in various villages that act to connect with female groups, and the women leaders, and provide information and consult about circumstances and activities in each village.

the most common form of qualitative data collection, and semi-structured and unstructured interviews, are the most practical way for researchers to involve themselves with study participants. Furthermore, DeLeon (2018) also notes how, “Finding a dearth of IR methods that take seriously marginalized voices, Stern (2005) hones in on testimonies and interviews as “speech acts” that define Mayan women’s reality of (in)security” (p. 19), and continues to note the hope of addressing “the paradox Eve Tuck (2009) characterizes as “over researched yet, ironically, made invisible” (411-412).” (p.16)

Throughout this process, the researcher tried to overcome problematic questions of positionality, or Foucault’s (2013) ‘clinical gaze’, which White and Tengan (2001) note as:

“Anthropology's valorization of ‘outsiderness’ as a strategy for culture learning, seen as a core from inside the discipline, is often seen by others as evidence of separation and detachment, of separate values and interests. Given the palpable legacy of power differentials between natives and non-natives in a region with a long and present colonial history, it should not be surprising that "separate" is often read as divergent and conflicting. In the present era of decolonization, when the interests of the foreigner and native are closely scrutinized by indigenous scholars concerned to critically unpack the (cultural) mechanisms of domination, "separate" easily implies "antagonistic.”” (p. 396)

femTALK had already explained that engaging with an academic audience is part of their strategic plan, and so this study had an element of that reciprocal motivation for the relationship between researcher and the organization. All the knowledge and information gathered from the interviews and focus groups will be provided to the radio station as well.

Focus Groups with Women Leaders

Stewart and Shamdasani (2014) related the origins of focus groups as being from the period in the wake of World War II, where what was initially conceptualized as “focus interviews” or “group depth interviews” were used for evaluating radio audience responses to topics or issues. Based on a group discussion of between 7 and 10 people, a focus group allows for determining certain characteristics and shared perspectives within a given population (Marczak & Sewell, 1991). As Stewart and Shamdasani (2014) also note, focus groups allow for direct interaction with respondents as well as an “opportunity to obtain large and rich amounts of data in the respondents’ own words”, while also “building upon the responses of other group members” (p. 45). From previous experience during the pilot it was noted that the focus group allowed for the respondents to feel more comfortable in an environment amongst peers, and encouraged open dialogue. Some limitations of focus groups that Stewart and Shamdasani identify included respondent’s responses not being independent of one another; restricting generalizability; and as is the case with interviews, “the open-ended nature of responses obtained in focus groups often makes summarization and interpretation of results difficult” (p. 17). There was also a risk of moderator bias, as well as dominant group members. To combat this latter limitation, those who hadn’t spoken were encouraged to talk by the researcher, thereby reducing the dominant voices.

Data

Site (Phase 1 – interviews with femTALK staff)

The staff member interviews were carried out at the new offices of femTALK. These offices are all located in Suva, near the main government office district area. The offices where

access was granted were structured as standard traditional offices, with a reception area, with individual work spaces. The interviews were all carried out in the conference rooms at each of the locations. Many of the training workshops and convener meetings also seemed to also take place in the conference room, as the walls of the conference room had posters with some of the key themes and discussions that were carried out in the workshops.

Participants (Phase 1 – interviews with femTALK staff)

Six staff members, including a DJ, two research officers, a volunteer, a community media officer and front-desk staff member, were interviewed for the pilot study in 2015, and during the site visit in March 2015. While one of the research officers is no longer with femTALK, the same staff members, as well as the new research officer staff member, were re-interviewed with additional questions in Phase 1.

Site (Phase 2 – interviews with femTALK conveners)

The Convener interviews were carried out in a combination of different venues – at the femTALK radio station offices, via Skype, and in various village settings, such as a community center or similar location, but all specifically arranged by the femTALK Network Coordinator.

Participants (Phase 2 – interviews with femTALK conveners)

The Conveners are femTALK's points of contact for the network of collaborators and women leaders, and acted as points of contact in various villages around Fiji, including in facilitating the women's groups in the villages. They also provided information for the Women's Weather Watch. Interviews took place with four Conveners. Participants for the Convener interviews were determined by the femTALK Network Coordinator and availability.

Site (Phase 3 – women leader focus groups)

The women leader focus groups in the villages were determined in consultation with the femTALK Network Coordinator but took place in regular meeting places of the groups. Fiji is organized into 15 provinces, each of which is further divided into 195 districts. Suva is in the Rewa province, which has nine districts and 52 villages. The focus groups were carried out in three locations, in multiple districts, in the Central Division (Suva area), Lautoka and Labasa (Viti Levu).

Participants (Phase 3 – women leader focus groups)

The three districts had approximately ten to fifteen women leaders in each location to participate in the focus group sessions. The focus groups were arranged through the femTALK Network Coordinator, who is also responsible for audience research at femTALK. The femTALK Network Coordinator is responsible for carrying out audience surveys and research for femTALK. The groups were purposively selected, based on their being part of the femTALK women leader network from the same district (location sampling) for each focus group.

Data Collection**Instruments and Procedures (Phase 1)**

Phase 1, carried out in Winter 2016, comprised extending the questions from the pilot, and interviews with the staff members, some of whom had already been interviewed in the pilot.

Using the questions outlined in Appendix C, the semi-structured interviews provided for the exploration of the general topics on the question list, while still allowing for the exploration of responses and other lines of exploratory investigation. However there is some added flexibility. Like Van Teijlingen (2014) has stated, “Everyone gets the same key questions, but

there is flexibility in how they are asked.” The follow-up questions may vary, etc. What follow-up or probing questions to use etc.”. Additional questions, which were not a part of the pilot were outlined (see Appendix C), keeping in mind the interaction between mobile devices, including Mobile Suitcase Radio and Women's Weather Watch, on health outcomes, as well as questions that explored the mobile device/femTALK dynamic with regards to Cyclone Winston. In the ongoing exploration of femTALK, there was much content regarding Tropical Cyclone Winston, on Women's Weather Watch and in mobile suitcase recordings.

As with the pilot, the interviews took place depending on the availability of the staff members between December 12 – 14, 2016. As with the pilot interviews were conducted in English, were entirely audio recorded on a digital recording device, after which they were stored on a Dropbox private secure cloud host for backup, and then deleted after transcription. Transcriptions were carried out using the voice recognition function in Google Docs, whereby recordings were listened to, and sentences were spoken clearly for Google Docs to transcribe, from one single voice (multiple voices not possible), using the OnePlus One Android smartphone voice recognition tool. Commercial web-based transcription services were utilized for some of the transcriptions, while others were automatically transcribed and then edited, using an automated transcription service. For both the automated and paid full transcriptions, a second round of editing was also carried out to proofread the transcriptions, where audio heard and the transcriptions were simultaneously edited. The automated transcription required extensive editing but provided a baseline; however, the commercial web-based transcription services were generally much more accurate, depending on the transcriber, and required much less editing.

Instruments and Procedures (Phase 2)

The Convener interview questions were based on the questions intended for the audience members during the pilot. These questions related to how the Conveners, and the women's groups they work with, interact with femTALK using mobile devices, as well as the impacts on education, health, agricultural/economic outcomes and participation in community decision making processes. Also, there were questions exploring how women used their mobile devices to interact with femTALK about Cyclone Winston and any related impacts. The questions were open-ended questions that mostly asked for a description of any impact, and how any interaction with femTALK and mobile devices takes place, from the perspective of the Conveners and audience members. Questions were stated simply, to allow for ease of translation, as necessary. The last question for the Conveners was an open-ended question asking about anything else that the participants would like to share about interaction between mobile devices and femTALK.

As with the pilot, the interviews took place at times convenient to the Conveners between December 15 – 17, 2016, and were scheduled by the Network Coordinator, and carried out in English. Interviews were entirely audio recorded, on a digital recording device, after which they were stored on a Dropbox private secure cloud host for backup and deleted after transcription. The transcription for Phase 2 followed the same procedure outlined for the interviews in Phase 1. Also, as with Phase 1, The IRB application included an adaptation of the approved pilot study IRB.

The interviews were audio recorded and transcribed, either by the interviewer or using a commercial web-based transcription service. As Stewart et al. (2014) note – part of the transcription process included connecting field notes linking any gestures and other environmental factors that affected responses.

The goal set prior to the interviews taking place, was to determine the perspectives on the communication process and their effects, from the Conveners themselves. These conveners were also audience facilitators, and thus their responses contrasted those from the radio station staff members, on perceptions of the processes and effects, and provided a more complete picture of the dynamics. There was also a local translator, or a cultural liaison as described by Gurung (2017), who “bridges any cultural gaps,” and a point of contact, Lina Annie, who is the Secretary-General of the Fijian National Youth Council.

Instruments and Procedures (Phase 3)

The focus group questions were based on the questions intended for the audience members during the pilot, with questions related to how the women leaders and their group members interact with femTALK using mobile devices, as well as the effects on education, health, agricultural/economic outcomes, and participation in community decision making processes. Also, there were questions exploring how women used their mobile devices to interact with femTALK on Cyclone Winston and any related impacts. The questions were open-ended questions that mostly dealt with the description of any impact and about any interaction with femTALK and mobile devices from the perspective of the Conveners and audience members. Questions were stated simply, to allow for ease of translation, as necessary. The last question for audience members was an open-ended question asking about anything else that the participants would like to share about the interaction between mobile devices and femTALK.

The guiding questions for the focus groups, outlined in Appendix D, allowed for a more free-flowing conversation of storytelling and conversation, as appropriate in a Pacific context. The focus groups did not require more than up to two hours per group. The focus group conversations were recorded on a digital recorder, with a backup made daily on Dropbox. Upon

return to Hawaii, the recordings were transcribed with the method described in the interview procedures. No Fijian or Hindi translations were necessary after the focus groups, as the translator translated any limited Fijian or Hindi vocabulary used in the focus groups immediately, even as the focus groups were being carried out. Developing rapport and open dialogue was greatly assisted by the trusted local intermediaries of the femTALK Network Coordinator, who has an established relationship with the women's groups; and the translator, who is the Secretary-General of the Fiji National Youth Council. While there are guiding questions, there was an emphasis on looking at the process as a consultative space, with open discussion as the participants felt, to respond to the questions being asked. The focus group transcriptions followed the same procedure outlined for the interviews in Phase 1.

In localizing and ensuring a Pacific-sensitive methodology for the focus groups, the format of the focus groups incorporated elements of the “Talanoa” method (Farrelly & Nabobo-Baba, 2012), which takes the form of a collective conversation with a negotiated understanding. As a consultative style, the method allows for a very Pacific-centric combination of voices, collective understanding, and supports the regional emphasis on speaking together as being more important than speaking individually. As Farrelly and Nabobo-Baba (2012) note, “for indigenous Fijians, values such as empathy, respect, love, and humility are essential” (p. 1), and the Talanoa method represents this. Furthermore, they note that the “the appropriate application of Talanoa as a method may decolonize research in the Pacific and contribute to empowering development policy and practice” (Farrelly & Nabobo-Baba, 2012, p.1). In summary, Talanoa being understood as “engaging in dialogue with, or telling stories to each other absent of concealment of the inner feelings and experiences that resonate in our hearts and minds” and “widely recognized in many Pacific countries” (Halapua, 2008, p.1). While Talanoa has no formal

procedures, as a Pacific-oriented practice closely resembling a focus group, the framing of the focus groups as a Talanoa was expected to improve upon the ease of acceptance and understanding by the participants. According to local custom, hospitality in the form of simple drinks and snacks were provided during the focus group sessions. Regarding ethical issues related to this method, please refer to the discussion in Phase 1.

From these focus groups, it was hoped that the learning would be the perspective of the women leaders on the communication process and effects, in contrast to the radio station staff members' perception of the processes and effects taking place. This would ensure a more complete picture of the dynamics. This information was collected during Summer 2017 (Phase 3: June 6-18). A budget was maintained (see later section) for the provision of hospitality – snacks and drinks, as well as for a local translator and point of contact, Lina Annie, who is the Secretary-General of the Fijian National Youth Council.

Data Analysis (All phases)

The primary analysis method utilized was that of inductive content analysis (Elo, 2008), or, inductive category development (Hsieh, 2005), whereby the units of analysis include thematic units where recurring explanatory statements are collated based on the categories of questions asked. Emergent themes are identified from this, to code the data. Vaismoradi (2013) describes this as “used in cases where there are no previous studies dealing with the phenomenon, and therefore the coded categories are derived directly from the text data.” This was carried out using NVivo.

Utilizing a process described by the Saldana (2015), the first stage of coding included ordering the transcripts chronologically, followed by an initial round of coding that involved reading the transcripts to generate category codes and label data, and the monitoring for special

vocabulary used by the participants, that might indicate an important topic. This was followed by more focused coding to eliminate, subdivide or combine categories defined into larger connected themes. Initial results from a conference paper, were shared with femTALK. Fereday (2006), describes how inductive thematic analysis utilizes a “methodological approach,” with “integrated data-driven codes with theory-driven ones based on the tenets of social phenomenology.” This means that the emergent codes derived from the data are categories that are based on social constructs determined by the women leaders and femTALK staff, with emergent themes.

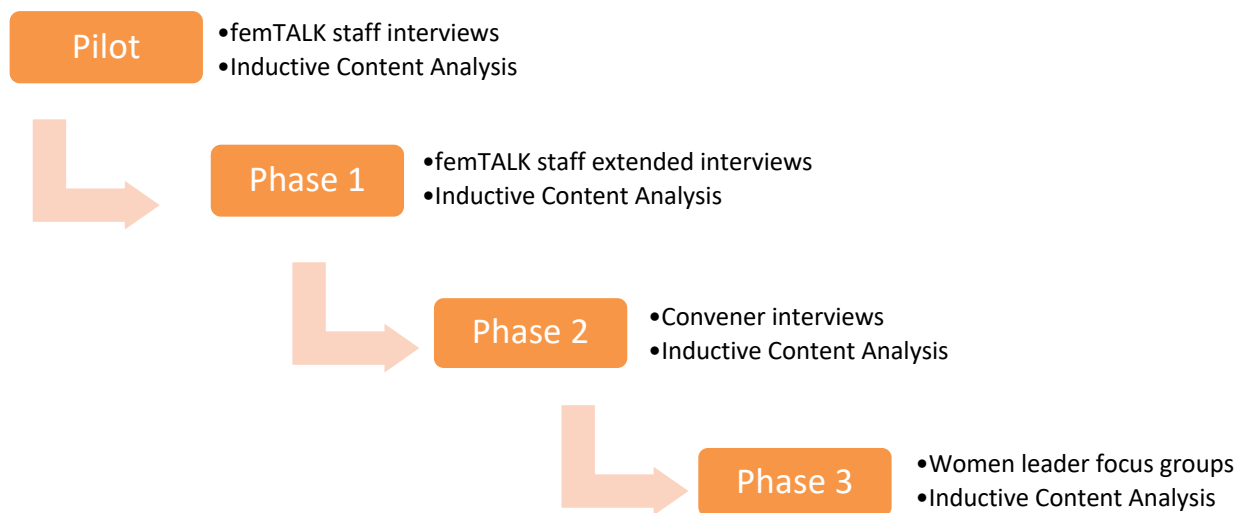


Figure 4. Phase Overview

Figure 4 above provides an overview of the phases described, and Table 2, below comprises details of participants in each phase.

Phase	<i>Participant 1 (Location)</i>	<i>Participant 2 (Location)</i>	<i>Participant 3 (Location)</i>	<i>Participant 4 (Location)</i>	<i>Participant 5 (location)</i>	<i>Participant 6 (Location)</i>
Pilot	Research Officer 1 (femTalk offices)	Research Officer 2 (femTalk offices)	Community Media Officer (femTalk offices)	DJ (femTalk offices)	Front-desk staff member (femTalk offices)	Volunteer (femTalk offices)
Phase 1	Research Officer 1 – alternate (femTalk offices)	Research Officer 2 (femTalk offices)	Community Media Officer (femTalk offices)	DJ (femTalk offices)	Front-desk staff member (femTalk offices)	Volunteer (femTalk offices)
Phase 2	Convener 1 (femTALK office)	Convener 2 (Skype)	Convener 3 (Convener workplace)	Convener 4 (Skype)		
Phase 3	Nausori-Nadi, 10- 15 Women in Leader's Group (Community center)	Lautoka, 10- 15 Women in Leader's Group (Government offices)	Labasa, 10- 15 Women in Leader's Group (femTALK Labasa offices)			

Table 2: Phase overview

4 STUDY SETTING

This chapter looks at the setting and context of this study, in three broad categories. Firstly, there is a discussion of Pacific research ethics and protocols, followed by a background of femLINKpacific itself, including the mission of femLINKpacific and its history. Then there is an introduction to the women's groups which were described in the monthly women's gathering in which the focus groups were carried out. There is also a section comprising the context of the location of the research, Fiji, concluding with a background of Tropical Cyclone Winston.

Pacific Research Context, and Pacific Research Ethics and Protocols

As the research study began, it became apparent that there is a particular posture that is necessary when involved in research in the Pacific, including consideration for reciprocity, acknowledging positionality, as well as due regard for a post-colonial empowerment framework. It necessitated knowledge of the larger Pacific context and protocols as well as those more specifically of Fiji. Hereniko (2000), questions,

“Do outsiders have the right to speak for and about Pacific Islanders? I was brought up to believe that the right to speak in public is not God-given. In specific contexts, only the chiefs or men could speak. In matters to do with women, the men remained quiet. On the other hand, westerners seem to think they have the right to express opinions (sometimes labeled truths) about cultures that are not their own in such a way that they appear to know it from the inside out. Most seem to think they have the right to speak about anything and everything; many even think they have the right to coerce natives to divulge secrets about their cultures to them. I have been in numerous situations where natives sit and listen while white academics discuss and analyze their cultures and people in an objectified fashion.” (p. 86)

There are undoubtedly sensitivities that, when researching in this region, one has to be mindful and aware of. Hereniko furthermore asserts that the researcher in the Pacific must be committed to empowering the native people to overcome social injustices and inequalities. However, expertise in a given field is recognized, irrespective of cultural perspective or indigeneity, and he notes that,

“Similarly, I cannot claim to know what happened in Rotuma on a particular date a hundred years ago only because I am a native Rotuman. On the other hand, Professor Alan Howard, an anthropologist who has studied my culture for more than thirty years, and who has a copy of just about everything published about Rotumans as well as his field notes over the years, may be in a better position to answer such a question. It all depends on the kind of research being carried out.” (p. 90)

Wood (2003), furthermore, posits two fundamental concepts (amongst others), that are relevant to the research. Namely, “reciprocity” and “orality.” Wood notes that early researchers held themselves apart from the communities that they studied and worked “in” without being “of” Oceania. These distanced experts shaped the region, without reciprocal obligations. The implications for this study with reciprocity include forming relationships with the communities being researched by not only asking for interviews with the radio stations and their audiences but also providing support, for example, volunteering time and expertise within the communities, to create a mutually beneficial relationship and similarly richer interactions. The offer of reciprocal contribution to the work of femLINPacific was made, however, no further actions were requested or carried out in this regard, primarily due to the limitation of feasibility of any reciprocal tasks. This, in fact, was a barrier that could potentially have hindered the progress of the project, as seemingly, femLINKpacific may not have seen any direct benefit, other than the

participation in academic discourses, for their participation in this study. With regards to “orality,” Wood comments that of the over half of the Oceanic population that live in rural areas, many are literate but “are unlikely to accept attempts to reduce their experiences or interests to representations in written texts” (p. 358). “We have evolved from a complex oral society and mistrust the power that written words seem to wield,” writes Kame'eleihiwa of Hawaiians (1992). Furthermore, recognizing the culture of Pacific Islanders it is important to explore the way in which these expressive forms are utilized in the context being studied as well as be able to “value the region's oral legacies, and diverse Native concepts, theories, and perspectives” (p. 363).

In a critical analysis of social representations of gender and the Pacific, Teaiwa (1994) states that “women have been in the vanguard of many Pacific Island sovereignty movements” (p. 96), including activism and organizing efforts around a range of issues, including health and the environment, amongst others. Drawing a parallel between the bikini and colonial nuclear activity, the bikini (and use of the name of the nuclear testing atolls) is described as metaphor for the affirmation of the colonial gaze of a female body, referencing Said (1978) with “colonial discourse as positioning ‘the West’ as actor as well as spectator, and the ‘Orient’ (or exotic) as passive reactor malleable site” (p. 92). Again, in our context, due reflection needs to take place, as a male researcher, I need to be aware of bias, positionality, as well as the social influences that frame the paradigm for the assumptions that underlie my perspective of research and the analysis of what I perceive as in many ways, an unfamiliar cultural landscape.

Jolly (2007) describes the historical sensibilities of European men influencing representations of Pacific Islander women. Particularly noting how the “women of the western islands were depicted as ugly, sexually unappealing and sequestered ‘beasts of burden,’ cruelly

oppressed by men.” versus the “lascivious” women of the eastern islands, with the analysis that “the position of women is seen, as it often was and is, as an index of civilization, but indigenous women's agency is portrayed as catalytic to the process of the ‘passage’ to civilization” (p. 521).

It is clear in this regard, therefore, that the position of this research must be based on acquiring knowledge. The posture of this research is, to learn how media organizations and radio in the Pacific have sought to advance the universal principles of gender equality, and furthermore, what other islands in the Pacific, or those with similar socio-economic environments, can gain from the experiences of the communities being investigated. As can be seen, from the pilot study, Mobile Suitcase Radio as well Women's Weather Watch, are all innovations that may be implemented in many parts of the world, particularly those where orality, communications infrastructure, and rural demographics have similarity to those under consideration in this dissertation. This may possibly be a process that is relevant to other parts of Oceania/the Pacific, or “the sea of Islands” (Hau'ofa, 1994).

In representation, Jolly, discussing Hau'ofa (1994), states “despite the diversities of languages and cultures, there is an ocean of connection among Islanders” (p. 530), which I also seek to understand through the historical lens of use of media and communications technology, thereby extending the parallels found between Mobile Suitcase Radio in Fiji, and walkabout cassettes in Vanuatu, for example. Discussing Hau'ofa further she further reflects, “But I do need to reiterate how he writes against the orthodoxies of foreign experts and especially those economists from the World Bank and Australian National University who constantly typify the Pacific in terms of what it lacks: not only the palpable absence of development or growth, but the deficiencies of scale, isolation, and dependency – small islands with tiny populations, remote

from world centers but increasingly dependent on them” (p. 529) as opposed to the idea of islands connected by an ocean that has already mentioned.

The University of Otago Protocols (2011) state that the “primary role of Pacific research is to generate knowledge and understanding about, and for, Pacific peoples and their environments” specifically with “the active involvement of Pacific peoples – as researchers, community leaders, advisors, participants and stakeholders” (p. 9), not just as subjects for research. Reciprocity is reiterated in these protocols whereby, reciprocity “should be demonstrated in practical ways” (p.12) – which beyond the previously mentioned offer of expertise and assistance with the station, may also include ensuring that the research that is produced from this study has accessible dissemination to those that may benefit from the research, including other Pacific islands radio stations and/or women’s groups.

Through the development of this project, advisors from the Pacific region have been involved in consultation on the project and continue to be so, including an indigenous Pacific Islander development practitioner who serves on an international social and economic development advisory board, and a co-worker from Fiji who assisted with connecting with the translator. Finally, the Otago Protocols suggest “catering for Pacific community network consultation meetings” (p. 17) – which were accommodated as much as is feasible during the Convener and women leader focus groups – with at least a minimum level of hospitality, as appropriate, although sessions were held outside of meal times.

The primary influence in this regard was the involvement of the translator and cultural liaison, Lina Annie, and the influence of trust that was borne out through her presence at the focus groups meetings, and some of the interviews with femTALK. Having a person of trust, in a cultural context, being iTaukei, female and involved in youth work at a national level, has meant that the participants in the study not only had the ability to speak in Fijian or Hindi when they felt the need to do so, but had an insider perspective, including questions based on shared experience, cultural references made in conversation, and so on, between me, the researcher, and both the women leaders groups, thanks to Lina Annie, a woman leader, and an iTaukei woman.

Fiji

There are real issues of gender inequality and poverty in Fiji. However, national interest by the development agencies and organizations in question – including on access to markets by national corporations, or land rights – create greater complexity. Positionality is vital in considering these statistics however, particularly in terms of underlying assumptions about the nature of development. As David and Tenkon (2015) write, “we know how important it is for us to protect our land and traditional livelihoods because it is all too easy to follow the Western aim of economic growth like PNG, where they achieved that end but experienced some of the worst development standards in the region” (p. 1).

Pacific Women (2014), a program of the Australian Government, notes that there are strong male-dominated patterns and social structures in Fiji, that continue to limit the participation of women in decision making and formal community organization. The organization further notes that income generation for women and overall economic

empowerment of women in Fiji was also in need of attention. Oxfam New Zealand (2015), a development organization, notes that,

“Fiji is relatively urbanized and enjoys high levels of economic development compared to other Melanesian countries. Increasing wealth disparities, rising levels of poverty, and a lack of employment and livelihood opportunities mean that many Fijians, in particular women and young people, face increasing social and economic marginalization.” (p.1)

Oxfam particularly notes that almost 40% of the population in Fiji is unable to sustain a consistent level of food intake and basic necessities. Over 50% of the population does not have a secure water source, and almost 15% of the rural population has inadequate sanitation. Fiji has robust equal access to education according to Pacific Women (2014), but female representation in Parliament stands at 16%, compared to a world average of 24%.

femLINKpacific – femLINKpacific Mission

As described on the femLINKpacific website, femlinkpacific.org.fj, the mission of femLINKpacific is to be a strong and effective feminist community media and policy network recognizing and affirming multi-ethnic and multi-faith founding principles:

With the goals of:

- 1) Women, young women, and the under-served communities accessing key information and communication platforms and participating in public dialogue and decision-making and lead shifts in public and political opinion.
- 2) Through the production of radio and multimedia content and publications which raise awareness of women’s leadership and participation at all levels of decision-making.

3) Working collaboratively with CSOs, donors and development partners and strengthening our own internal governance systems and processes as it refers to their finances and operations as well as human resource capacities (femLINKpacific, 2018).

	FemLINKpacific purpose	FemLINKpacific activity	FemLINKpacific impact	FemLINKpacific challenges
Sample quote 1	Highlighting stories and making sure that women's stories are heard.	Producing policy documents and publications from interviews that are shared with the government and the community.	femLINKpacific has empowered the women to raise their voices to speak about community governance issues, such as water and electricity projects.	Up to now the Suva branch still only reaches out to the surrounding one hundred kilometers. So, it goes up to Navua and then you know all this, but for here we are still on ten. And we are working on trying to get the reach out further.
Sample quote 2	Closing the information and gender gap and raising women's voices on issues such as domestic violence.	Most of the shows are interview and event (human rights) shows, interviewing women from various groups, including inter-ethnic or faith-based or sexuality-based groups in panels.	Attending the consultations empowers the women to speak up about community issues and then run as advisory councilors in local government.	
Sample quote 3	Enhancing participation of women in all levels of decision making.	From 2004, realizing that radio was the most effective medium, 'generation next' trained young women producers and broadcasters so that the communication and message are maintained.	A multi-racial Women's Group brought women of all diversities together to talk about economic insecurity - started income-generating projects (built a shop, brought electricity to the community, found out about who is accountable).	

Table 3 – femLINKpacific characteristics with sample quotes

Table 3 summarizes femLINKpacific's purpose, impact, challenges and activities, all of which are described in sub-sections in the next chapter, as described by the interviewees, and focus group participants.

femLINKpacific –femLINKpacific History

The mission of femLINKpacific is closely tied to its formation. The femLINKpacific (2018) website describes the ‘her’story of femLINKpacific. Established in 2000 as a registered Fijian charity, the focus of femLINKpacific is to be a community media initiative for “women speaking to women for peace,” as a result of the May 2000 Fijian coup. Starting solely with a mobile radio platform, femLINKpacific now operates two fixed stations and a third roaming kit, with twenty-three roaming correspondents provided with recorders across Fiji, and seven across the Pacific. With its 24-hour broadcasting from Suva, and weekday broadcasting from Labasa, femLINKpacific produces online and video content, a Community Radio Times publication and policy documents. FemLINKpacific co-convenes the Fiji Women’s Forum and the Fiji Young Women’s Forum, and also works with the Global Partnership for the Prevention of Armed Conflict (of which they are the Pacific Regional Secretariat) and AMARC (the World Association of Community Radio Broadcasters), and WACC (the World Association of Christian Communications) – also serving as the regional coordinator of the Global Media Monitoring Project.

One focus group participant described the history of femLINKpacific and her meeting with Sharon Bhagwan-Rolls (the founder and chief executive) in 2000, the year when femLINKpacific was born. She explains how the repercussions of the coups in Fiji had consequences on communities, and how she and Sharon realized that in particular, there was a silence from the women and youth. At the time, they were doing cultural peace workshops-to encourage people to talk about issues, but when speaking with youth, frequently the question would come up of “What about silence?” Asking that question brought about the realization that people are comfortable with silence, but that there were some deep-seated problems which

needed airing. femLINKpacific bought its first radio broadcast equipment, with the goal of giving voice to these issues, following this realization in 2004.

Women Leader's Groups

The three focus groups comprised 10 to 15 women leaders each, who shared information about each of their women's groups at the start of the focus group sessions. The history of the women's groups is varied and includes a range of years of formation from 1929 to 2009. Some groups meet every fortnight, with an average of 725 women as members of each group, with the smallest group being 16 members and the largest consisting of 600-1000 women in each of the six villages. The positions in their local groups of each of the women leaders taking part in the focus groups, for those who shared that specific information, included one treasurer, six presidents, two vice presidents, one spokesperson, six secretaries or village secretaries, two coordinators and two life members.

In all three focus groups, some of the participants described a variety of the activities at their women's group meetings. Examples of statements made by individual participants in the focus groups, include, "We've been doing fund raising for our Fiji day tour next year in Australia and also we've been doing volunteer community works in our area," or "What I do, I always encourage the mothers to just, I think most of the women, we have this mindset that we have to be in the kitchen twenty-four-seven, so when I came in here I changed it. It's like I went in the interior inside, and I brought in the ladies to join that group, and I started teaching them about how to run their house, how to prepare their budget, and just they know what to do," or "We do our prayers every night and the raffle ticket so that we can get money for donation."

Another participant describes, “They get issues on Mondays if we meet and these issues wait, we talk about them and during the meetings, we meet once a month, and we raise our issues there. We seek out the floor during village meeting and some of the ladies are not really old enough to say what they want, the issues that face. Because of our culture there, through FemLINKpacific, I belong there for about a couple of years now. Through FemLINKpacific, I became to know more and to know what I can do by role [sic] as a leader to tell this woman, ‘No, you go on. You say this, and you do that.’ So, in any of the meetings that we do face when I get to the meeting, we begin to resolve issues. Whatever issues we face, we look for the betterment of the people whether educational or health or whatever or every households [sic] what they face -- this is what we usually bring during the village meetings.” So, with these meetings we see, the women really explore creative solutions to issues that they face, with the firsthand knowledge of the issues brought by themselves or the groups that each works with – to determine and address the realities that they are faced with.

In terms of the purposes described by many of the women leaders participating in the focus groups, three primary purposes were described – first the goal of alleviating poverty in their community, second to provide group members with a space to share and discuss their issues in a safe and empowering environment, and third specific focus topics defined by the individual group. This usually consisted of either a health group, an educational services group, or a group for addressing the issues of the LGBTQ community.

Describing some of the interactions between femLINKpacific and the women’s groups, one of the Conveners in the focus groups described:

“So, some of our members are involved in so many issues. If I’m needed to assist in let’s say policy writing, or they are requesting to do training, and for example, I am going to

connect, to connect other personal organizations to, if there is a training now like for instance were committed for a femLINKpacific to three offers to co-convene. So that's why you see me here. And we do various activities all depending on what issue is, what issue arises. Even if there is some in some organizations, if they need workers, or if they need people to go out, and say, for instance, if they are studying, so we facilitate that also for them, the organizations so they can do their own writing. And we also go on per request to organizations to do trainings in suicide interventions in child abuse. And at the moment, we, our organization members, very much involved in the consultative process doing collecting of signatures for constitution review. So, we need these holistic ways, and our members are also members of other boards.”

Three women leaders described the history of their women’s groups, one in a mothers’ group and two Indo-Fijian network groups.

The mothers’ group leader describes her story:

“I have two kids. My daughter, she's married, and my son is in University. I was a working mother, and I was working for life insurance, then I was a teacher both in Methodist. I got for two years, then after my pregnancy, I stopped working, and then all of a sudden, I was sitting at home, I was thinking of why not I form a mothers' group. So, from there, it was formed in 2008, and from the mothers' group, we had more than twenty members, but now I have fifteen of them.”

Another woman leader described the background of one of the largest Indo-Fijian organizations in Fiji, founded in 1926, and has helped develop 22 primary schools, 5 secondary schools, a nursing school and many temples. The representative from this organization described how after the organization built their first school in 1927, she was a student of that school, then a

teacher, and finally an administrator as the head teacher of the school in 2009. According to the representative, when the organization started, very few of the Indo-Fijian families primarily from the Southern part of India knew how to speak English. Thus, when their children were sent to local schools, they were not accepted because they could not communicate with the iTaukei children and could not understand English and vice versa. This problem directly led to the formation of the group TSS Sangam. An understanding of the formation and the structure of these groups is vital to understanding the way they cooperate and communicate. When the opportunity to understand how the groups communicate about extreme weather conditions (in this case, TC Winston) arose, it was interesting to note how the various groups connected with each other and amongst themselves.

TC Winston Background

Tropical Cyclone (TC) Winston was a Category 5 Cyclone that struck Fiji in mid-February 2016. TC Winston was the strongest cyclone to make landfall in the South Pacific in recorded history. According to Reliefweb (2016), TC Winston affected 350,000 people, with 150,000 requiring shelter assistance, damaged 495 schools and 88 health facilities, and created estimated damages of \$1.42 billion, resulting in a thirty-day State of Natural Disaster.

In the interviews carried out during Tropical Cyclone Winston, the staff members and Conveners described that during Winston, in many places there was a media blackout and so the text messages that were sent through Women's Weather Watch were the only source of information during the Tropical Cyclone. There was also no Mobile Suitcase Radio before the Tropical Cyclone, but there was some broadcasting, and posting on the website, Facebook and, as already mentioned, through Women's Weather Watch. After Winston, initially only Labasa

was broadcasting, as the radio station had to be shut down during TC Winston, but Labasa started up on the following Monday and was the only station available. Immediately after TC Winston they did take Mobile Suitcase Radio out to the northwest to do interviews. One interviewee also described, how after TC Winston, they interviewed the market vendors in Nadi on the issues that they faced during the cyclone and broadcast it through the Mobile Suitcase Radio, and on Mixcloud and in policy documents. In some of the interviews carried out after TC Winston in May, the women described how they could get to evacuation centers, and felt safe etc.

Some of the interviewees also described governance processes, in relation to TC Winston. It was described how immediately after TC Winston, the National Disaster Management Office came and met them during the national consultations and learned from the rural women about these issues. Furthermore, an interviewee described how FemLINKpacific is now paying more attention to working more closely with the authorities, including the NDMO, to provide the perspectives of the women in the Women's Weather Watch network. In Nausori and Navua, one interviewee also described how it flooded all the time, and how the women now wanted to set up disaster preparedness committees, as a preventative measure against the effects of the flooding and weather conditions.

5 FINDINGS

In exploring the research questions:

RQ1: How do women in rural and agricultural communities in Fiji utilize mobile devices to interact with community radio? What effect, if any, does such usage have on their realization of praxis, voice, and generation of knowledge as an alternative development paradigm?

And following Cyclone Winston, which hit Fiji on 20 February 2016, the secondary research question of:

RQ2: How did and are women in rural Fiji utilizing mobile devices to interact with community radio in response to Cyclone Winston? What effect, if any, did and does such usage have on mitigating the effects of Cyclone Winston, and resilience factors?

This chapter will first outline a timeline of the research that was carried out and continue with some of the findings on the community radio station under consideration, femLINKpacific, primarily from information extrapolated from the interviews and focus groups. Each of the chapters, in this section, relates to the categories that were derived from the data and reflect the inducted themes. Furthermore, the sub-categories and themes are similarly reflected in the chapters that are described in this section for example “Mobile Suitcase Radio,” and sub-category of “MSR advantages.” Therefore, this includes the history and purpose of femLINKpacific and some of the highlights of the characteristics and productions provided by femLINKpacific, as well as its impact. There will be an outline of some of the main challenges described by the focus groups in the achievement of the goals of femLINKpacific. This loose case study approach contextualizes RQ1 by first identifying the platform and media structure that promote ‘voice’ for rural Fijian women. In the second part of this chapter there will be details of the results and analysis of the first primary femTALK platform, “Mobile Suitcase Radio,” including a history of the platform, the main features of the platform and some of the advantages

of the platform. The following section then looks at “Women’s Weather Watch” with similar details of the features, processes by which it operates, and mutual support affordances, as well as ways in which the platform is used for disaster communication and some of the challenges associated with that. These two sections on “Mobile Suitcase Radio” and “Women’s Weather Watch” also directly address RQ1, in describing how rural Fijian women utilize mobile devices to interact with the identified community radio station. The next section of this chapter describes results on “Radio with Pictures,” and content analysis of the programming of the series after TC Winston, specifically with regards to the Fiji National Development Plan, including economy and health, initiatives, governance, and other objectives. This addresses RQ1 and RQ2, in terms of understanding the procedural implications of the mobile and radio interaction, which leads to participation in more visible media platforms, and how that realizes ‘voice,’ generation of knowledge, and mitigation and resiliency for Tropical Cyclone Winston. Section 5 of this chapter will provide data and analysis on the characteristics of the women’s groups and consultations that are organized by femLINKpacific, including inter-ethnic features. This data and analysis includes description of the women’s groups purpose, process and activity, details of the women’s group impacts and challenges, governance processes, impacts and challenges and economic initiatives that are related to the women’s groups, which address non-mediated communication factors that are related to the work of the radio station, and which were unexpected findings beyond the scope of just the radio and mobile device interactions. Finally, in the last section of this chapter, there will be specific analysis of results regarding Tropical Cyclone Winston. This will focus on some of the background of media availability during TC Winston, ways in which there was preparation and use of traditional knowledge for TC Winston, effects and post-Winston recovery, other TC Winston economic challenges, and other

communication-related challenges. This section continues with data regarding Women's Weather Watch communication before, during and after TC Winston, and other features related to TC Winston that were gleaned from the interviews and focus groups. In order to relate 'Women's Weather Watch' further with Tropical Cyclone Winston, this section continues to explore the method and outcomes being investigated for RQ2, and the exploration of indigenous knowledge transmission through the media platforms, which exemplify the type of knowledge and 'voice' being explored in RQ1.

Timeline

Following the pilot carried out in March 2015 (see Appendix A for full details, and B for the instrument), the scheduling for the interviews and convener focus groups was arranged in collaboration with the Network Coordinator at femLINKpacific. Phase 1, which was the extended staff member interviews (see Appendix C) was thus completed between December 12th to 17th, 2016. On the same trip, Phase 2, was also completed, with the Convener interviews (Appendix D) taking place around the same time, between December 15th and 17th. Phase 3, the focus groups with the Women Leaders was carried out between June 6th and 18th. On each of the trips, a fourteen-day business visa was granted at immigration, which was deemed as sufficient for this research by the immigration authorities. The phase 1 and 2 staff member and convener interviews were all carried out at the femLINKpacific offices, while each of the women leaders focus groups were carried out at the regular meeting places of the women's groups, with Lina Annie, the Secretary-General of the National Fiji Youth Council, in attendance to act as the cultural liaison, to both assist in any translation required, as well as assist with enhancing cultural rapport and trust.

femLINKpacific

femLINKpacific Purpose

Further describing the purpose of femLINKpacific, interviewees note many priorities including highlighting and making sure that women's stories are heard and encouraging the participation of women in all levels of decision making, as well as highlighting women's voices for peace – which the interviewees go on to define as being able to walk down the street safely and put food on the table. Further delineation of purpose also includes closing the information and gender gap, and raising women's voices on issues such as domestic violence, as described both on the femLINKpacific website and staff member and Convener interviewees. Several interviewees further stressed the role of closing the gender bias in media, noting that stories in the mainstream media, for example in the *Fiji Times*, often highlight men's perspectives and businesses, whereas femTALK highlights women and their issues, including their role as mothers, and therefore democratizes the airwaves and shares community and rural women's views on issues and development. In the application for this purpose, one femLINKpacific Convener interviewee noted that “Sharon would go out into the community and interview the rural women, to ask them what's happening.” This is in direct contrast to mainstream media reports from the urban, central government perspective, and are the direct voice of the people, which is a salient feature of femLINKpacific.

femLINKpacific Features

Features described about femLINKpacific and femTALK, by both the femLINKpacific staff and Convener interviewees, included the fact that femLINKpacific produces policy documents and publications based on the radio interviews that they do through their platforms, which are then shared with the government. Three interviewees also mentioned that

femLINKpacific also engages in partnerships with a number of international media organizations – including GPAC (Global Prevention of Armed Conflict) with whom they designed modules for training for conflict in democracy and sports, and GMMP (Global Media Monitoring Project), which monitors the representation and portrayal of women in mainstream media. This highlights how women, who are interviewed in the media, are often not asked about care work and the double burden of family responsibilities and work, and how femLINKpacific brings this aspect and voice to light. Finally, regarding specific features, one interviewee described how most of the shows are interview-and-event (for example, human rights) based, with participating women from various groups, including inter-ethnic, faith-based or sexuality-based panels. The variety of activities carried out and led by femLINKpacific makes it incredibly hard to evaluate the organization's impact, which will be discussed in more detail in the next section.

femLINKpacific Impact

Looking at the views as regards the impact of femLINKpacific, which will also be discussed further when describing the femLINKpacific platforms themselves, the sentiment generally shared by the staff and women leaders was of the positive impact of femLINKpacific, although this may be as a result of possible bias in the selection of staff members and conveners and women leaders that are heavily involved in the femLINKpacific processes. During the one of the focus groups, a woman leader participant described a specific characteristic in which partnering with other Pacific-based community radio stations gives a sense of understanding and affirmation to the concerns and issues of the Fijian rural women:

“Yes, because we have focal points in other countries like Samoa-- not Samoa but Tonga, PNG, Solomon Islands, Vanuatu. We also have one from Haiti, he always come [sic] and tell [sic] our regional partners meeting. But with this focal point, we get stories from

them too. And they record stories of women from this country, and this is also broadcast in this community within FemTALK radio. So, it's interesting when you're listening to their issues then we don't feel alone because we know we're not the only one that's facing it and there are other women in other parts, and that builds solidarity and confidence and continue to talk about these issues. And it just affirms like this; we are saying the right things, you know? And like some women here in Fiji, they have like when we come around and do the convening, like even here for the three provinces, and I go you know from here, and you go to Bua and the Nakonroveh. Sometimes when we come back, and they say, "Oh, the reason you are raising the last time," like the road they are working on it, they are starting to work on it. Or the water they have come to fill, you know there's some level of engagement to address that issue where in some places where these issues still not being touched then they say, "Oh, we continue to say the same thing," you know? The same issue."

She essentially encapsulates how there is an echo of women's stories not only within Fiji, but also regionally across the Pacific, on similar media platforms, and the way in which the women that participate, as well as listen across the media platforms, build a shared sense of identity through these platforms.

Many impact themes were described in the interviews, which form the section headings in the chapters of this dissertation. Firstly, the interviewees noted that with the women's groups and interaction with femTALK, community governance issues had been raised and dealt with, including access to water and access to electricity. Secondly, the interviewees also described the enhanced capacity created in terms of the powers of expression, including both in English speaking and writing skills through the various platforms, as well as the ability to speak up about

community issues with local government. This includes a description by one interviewee on how “One time in Nausori two young women really grilled the Town Council CEO about where taxes etc. are going, about drainage and health workers, and this really empowered them.” Finally, an additional impact that was described in two instances by the interviewees was the way in which inter-ethnic and multi-racial collaboration is facilitated, including the ability to bring people of diverse backgrounds together to realize income-generating projects, as well as in bringing iTaukei and Indo-Fijian women together to talk about community service provisions, for example, government provision of electricity services needed for their economic initiatives.

femLINKpacific Challenges

In terms of challenges, particularly described in the focus groups, a primary concern was shared by two of the three focus groups, namely coverage, and media access. It was described how the radio channel, because of limitations to access to other forms of communication, namely TV and internet, remains the primary form of access to media. Secondly, the service provided during natural disasters was also described as highly valuable in preparing for the weather conditions. However, again, coverage, was seen to be limited, specifically with the Viber and SMS networks for Women’s Weather Watch, for the remote and outer islands. In terms of the radio station itself, the limitation on coverage was the range of 100 miles on the main island and to the areas around Labasa on Vanua Levu.

Radio with Pictures

As this study was being conducted, the researcher discovered the existence of the program “Radio with Pictures,” which connected with RQ1 and directly contributed to answering RQ2. It was therefore decided to include it in the study, and analyze it as a unit with

regard to the research questions. This proved interesting and fruitful. This section will provide the findings of that analysis.

The culmination of the women's participation in shared spaces, first in the community spaces and MSR, as well as in their work as roaming correspondents, is the capacity to participate in national media spaces and to express voice and share knowledge accumulated from the shared spaces specifically described in RQ1. The combination of this sharing of knowledge on a national platform and Tropical Cyclone Winston, addresses RQ2 in terms of enhancing resiliency and sharing knowledge. "Radio with Pictures," a YouTube and Fiji One TV program recorded as a panel talk show, was discussed in the interviews and focus groups. A series called "Radio with Pictures" was recorded immediately after Tropical Cyclone Winston, and was transcribed and coded.

"Radio with Pictures" came about in the wake of TC Winston, and is important to this dissertation for what it added to the discussion. It brought clarity to certain specific topics, in particular, those to do with the National Development Plan in the light of the National Consultations, and these were categorized with emergent themes. This exemplifies the capacity developed through the various platforms, to consult on governance issues, as well as share knowledge accumulated, in relation to TC Winston:

National Development Plan

Two main sub-themes were apparent from the coding of the "Radio with Pictures" series, in relation to the economic factors of the National development Plan. One was the description of the specific economic initiatives undertaken by the women leaders on the panels, and secondly, the descriptions of specific challenges, needs, and reforms that were required to be addressed to overcome economic problems.

First, in looking at the economic initiatives, a number of examples were described, including the role of multi-racial groups with freehold land for agriculture, poultry farming, and beekeeping, as well as ponds for aquaculture. Other initiatives received grants from development funds to build, for example a water tank in a town that was lacking adequate water supplies, while in Nadi, a women's group making handicrafts and women's clothes for sale benefitted.

When describing challenges and needs required for economic development, the women leader panelists reported the need to promote virgin coconut oil production through initiatives supporting coconut agriculture while still ensuring that women remained supplied with root crop vegetable seedlings to be harvested. Another area of support discussed was how the improvement of road quality would lower the cost of travel for women, currently inflated by bad roads, as well as specifically help sugar cane farms and to decrease the number of dusty roads causing health problems. Furthermore, it was described how the cost of transportation for traders selling handicrafts often exceeded the income generated from the activity. The requirement for agricultural business training was also highlighted as an additional need. Connected to the idea of providing seedlings, it was explained how developing knowledge of how to prepare seedlings would also be beneficial. Finally, a consistently shared issue was the need for women's land ownership rights, as well as land availability and use. In one meeting with a faculty member at the University of the South Pacific, it was described how currently the ownership of land is primarily in the hands of men, and also limited to some degree to iTaukei men, and excluded Indo-Fijians. In this context, it was reported that the women of the household do not have ownership rights, and how traditionally women give the earnings from the land to their husbands. This then creates inequality in household decision making when it came to the use of the family income, as well as depriving women of the security that comes with land ownership.

Health was also a big concern for the women, and formed a broad discussion. When discussing the National Development Plan regarding health issues, a number of concerns were shared by the panelists, as well as hopes for improvement. The first of these was the need to have adequate medication and well-supplied dispensaries in the rural areas. Coupled with this, as mentioned, was the need for paid medical staff, such as nurses, to be accessible in rural areas. In one-third of the ‘Radio with Pictures’ series in which the discussion focused on health, the discussion emphasized local health services. Access to clean water was another major area of discussion with regards to health, and panelists continued to ask for clean water, and emphasized that water is a big issue, as is the need for water tank installation to provide reliable access to clean water. Finally, it was stated that as some of the women in their women’s groups are sportswomen, it was important to address the health concerns of sportswomen, and also to invite LGBTQ women to workshops for physical wellbeing to help them understand how to take care of their bodies.

In categorizing the National Development Plan conversations on “Radio with Pictures,” from the specific segments that spoke more directly about initiatives and governance, two main topics are apparent. Firstly, the panelists describe specific economic initiatives, and secondly, panelists describe initiatives that encourage participation of women in governance structures. These examples and descriptions show how praxis is realized in the utilization of the community spaces to create specific action.

When describing initiatives to enhance women’s participation in governance structures, the view was put forward that a big difference would be made in the country by giving women

the chance to have 30% participation in community decision. Examples used to emphasize the need for strong support for the push for 30% representation was Malala, and work on water issues where it is the women who are organizing communication and action. Panelists felt that people have to understand and recognize the role women play. Everyone, including current decision makers, need to hear this and understand the importance of having women at the highest decision-making levels, as well as at the village or provincial level, as representation of the voice for women from their communities. Panelists reported how women are already doing the work, and called for more, with more listening at the community level to influence the higher policy level. Finally, panelists encouraged nondiscriminatory gender and disability policies which are inclusive, with an example from one panelist highlighting the current gender discrimination in family inheritance practices.

RQ1

The findings from femLINKpacific are directly related to answering RQ1, which was:

How do women in rural and agricultural communities in Fiji utilize mobile devices to interact with community radio? What effect, if any, does such usage have on their realization of praxis, voice, and generation of knowledge as an alternative development paradigm?

Certain platforms of femLINKpacific were identified after the interviews and focus groups were carried out, namely, the platforms of Mobile Suitcase Radio, and Women's Weather Watch. This section describes in further detail, the findings from the interviews and focus groups, whereby each platform is described in further detail, as well as the way in which each of the platforms is described by the women leaders and radio station staff, who also describe how each platform enhances 'voice' and praxis.

Mobile Suitcase Radio (MSR)

Mobile Suitcase Radio Background and History

In exploring RQ1, we see that one of the findings, – a mobile and non-mobile phone related platform is “Mobile Suitcase Radio.” As described by Sharon Bhagwan-Rolls on Radio Australia (2012) and linked on the femLINKpacific website, Mobile Suitcase Radio:

“literally is a radio station that fits into a little suitcase. It's about 20 kilograms in weight; it has a low-powered transmitter. We work with a 100-watt transmitter, very different from the large commercial or public broadcasters. But what it gives is a small station that is easy to manage, particularly for communities that come from no broadcasting experience, and the opportunity to also travel around with your radio in a suitcase and a mast to go out and broadcast with communities, which is what we do in Fiji.”

Furthermore describing the way in which MSR is complemented with a network of rural correspondents that utilize tape recorders to report around the country further explores RQ1, and the way in which women use mobile devices again, and also beyond mobile phones to interact with the radio station:

“We've taken the radio out and we've sat down and we've developed a network of rural correspondents, you've spoken to some of them from Labasa, from Ba'a, from Nadi, so you when you train, so the idea is also it's about sharing our knowledge and technical resources also, so the idea is that in the coming months FemLINK comes in and works with our current partners on the ground here in Nuku'alofa, equip them with the skills and get ideas from them also so that they can see how they can adapt the knowledge and use it to be able to go out and equip women with basic tape recorders, so that they're also recording stories in their communities and sending it back. We found that our rural

women's media network has worked in the way that we're able to collect the voices and the issues from women in communities without having to go there ourselves.”

Describing how capacity is being built, somewhat through a citizen journalism approach, with simple tools, such as a tape recorder for a network of women across Fiji to engage in reporting across Fiji, in developing journalistic skills and practice with the tools that are available. Much akin to the citizen journalism that is developing through internet platforms, this platform seeks to develop content and engage in reporting through a network of women across Fiji through accessible communication technologies, such as tape recorders or smartphone recording devices.

The femLINKpacific (2018) website furthermore describes the journey of the Mobile Suitcase Radio platform, which starting in 2004 started working with young women volunteers from a secondary school, with monthly “weekend” broadcasts with a 100W transmitter. Additional funding later came from the Australian Government to build the 300W Suva station.

In the focus group in the Nausori-Suva corridor, one of the participants described the history of Mobile Suitcase Radio, where they started taking a tape recorder, even before they had the radio station, to villages and to women just to create a safe talking space for them sitting in their own house in their comfort zone. The participant describes how she remembers a woman saying, “I can speak here because no one can see me, but you know I can speak, and my voice can be heard.” The participant then went on to explain how women just need to tell their stories, they need to share, and they need to bring out what they are facing. The participant concluded by describing how this was begun just by interviewing women and hearing their stories and then sending it to Suva for Sharon to produce and broadcast it on other radio stations.

Two specific features of Mobile Suitcase Radio were highlighted in the focus groups. Firstly, the way in which the content of the Mobile Suitcase Radio interviews is transcribed, and then are printed in the femLINKpacific produced Community Radio Times. In this way, the focus groups identified that their voices were being heard not only through the Mobile Suitcase Radio platform itself, but also the audience for their issues and perspectives was broadened through the femLINKpacific publication.

Secondly, the focus groups also identified that the Mobile Suitcase Radio platform, when used in conjunction with the issues shared at the monthly consultations, also brought great awareness to their issues, in the public sphere. One of the women leaders noted a specific example where an issue of flooding in Labasa was raised in the consultation, and through Mobile Suitcase Radio, and was then subsequently broadcast. It received numerous responses from her friends from the consultation, who called her to ask what was happening in Labasa and with the flooding in her vegetable garden.

MSR Advantages

This indicates that MSR is seen as a very positive medium by the women of the region, who respond to its ways and means. The main value described in one of the focus groups for Mobile Suitcase Radio was the idea of capacity building. One-woman leader participant described how she was initially shy to talk on the radio, but with the intermediate step of speaking on Mobile Suitcase Radio, she was able to overcome her shyness, and develop confidence in speaking on a media platform. This will be discussed further in a later section, but it must be noted and reiterated that this idea was often repeated – where the women believe their capacity and confidence is developed through the use of various media platforms by the women. This is a multistage process, with incremental steps-undertaken to develop capacity – first

through Mobile Suitcase Radio or being interviewed by a roving correspondent; then participating in a local, national and district consultation; and then being interviewed on the main Suva radio station; followed by being included on panels of Radio with Pictures. At each stage, the power of expression of the women leaders and women participants in the network is developed further to be able to share their issues and community concerns effectively.

Two aspects of the value of Mobile Suitcase Radio were highlighted. Firstly, the idea that when the women in rural areas hear stories from other rural women that resonate with their own experiences, particularly for the market vendors, they feel empowered to speak up about their own issues and also have their own concerns validated. Secondly, with Mobile Suitcase Radio, a perspective that was shared was the idea that femLINKpacific has a long-term commitment to the areas in which it works. That is to say, they have circulated the Mobile Suitcase Radio regularly, over a long period of time, to the villages and rural areas that they work with. Therefore, the women that participate in their activities develop long-term relationships as well as familiarity with both the station and the Mobile Suitcase Radio platform, such that they are both connected to and at ease with using the platform and listening to the station, as well as working with the staff and women-leaders that are part of the femLINKpacific network.

Women's Weather Watch (WWW)

Women's Weather Watch Background

One of the unique outcomes of this study and an integral part of the women's networks and femLINKpacific is an understanding of how women in the region communicate about the weather. As described on the femLINKpacific (2018) website, www.femLINKpacific.org.fj, Women's Weather Watch, a femLINKpacific platform, started in 2009, following Cyclone Mick's incursion on Fiji. Before this, women, who were often the last to get to evacuation

centers because they were mostly collecting belongings and securing their households, were not involved in relief and coordination efforts. Essentially, Women's Weather Watch is a mobile phone-based social network, whereby women who are a part of the network of women's groups, share information about weather conditions, in an understandable form, via SMS, Viber, Facebook and so on. The information shared includes both information from the National Disaster Management Office and meteorological information services, as well as weather information shared by the members of the women's groups themselves through a distributed network. Information shared by the women is communicated first to the women leaders and then to the network coordinator, who then either shares the information across the whole network or to a specific divisional network if the information is only relevant for that district. Similarly, information from the national offices may be shared across the network, or to a specific district network. The website continues to describe how Women's Weather Watch is:

“A model for monitoring approaching storms and disaster management in their communities, providing real-time information with a local touch and a constant campaign of FemLINKpacific's – constantly shining light on the continually overlooked area of the involvement and consultation of women before, during and after natural disasters.”

Furthermore, as the femLINKpacific website also notes:

“Part of the Women's Weather Watch is the engagement of our community media network, acting as go-betweens between the communities on the ground and those who need to hear the reality the communities experience.”

WWW Features

Some of the main features of Women's Weather Watch described by the femTALK staff interviewees and women leader focus group participants, is how through Women's Weather

Watch the women are able to pass SMS messages to each other, including to family members, relatives and neighbors, not just about weather information, but also for weather preparation. Women's Weather Watch also ensures that weather information is at its simplest, most understandable form by taking information from the National Disaster Management Office and putting it into simple English (see the Facebook stream data in section 5.3.2.6)⁶. Another participant described how the correspondents from femTALK also unearthed stories from the women leaders and shared that with the network. In many instances, the women leaders also described the use of Viber and other mobile communication tools for communication through the Women's Weather Watch network, rather than just SMS. For example, there was an active Facebook page that was used prior to TC Winston so the Conveners and network members were able to share messages about TC Winston on that group, as well as provide up-to-date information.

Other sources of information for Women's Weather Watch are the correspondents for femTALK, who also are able to find out stories from the women leaders and then share these through the Women's Weather Watch network. In terms of Tropical Cyclone Winston, one focus group participant described how she was able to send information prior to TC Winston and then after TC Winston to reach out to women and check if they were okay. She also discussed sending the women leaders of each of the groups to check on their groups, which will be discussed in more detail in a later section. With 12 centers around Fiji as part of the Women's Weather Watch network and 10 women per center, the Women's Weather Watch network reaches 240 families overall.

⁶ The actual content of the SMS and Viber information is not public and not shared, although the Facebook stream was available. However sample SMS and Viber messages are shown in femLINKpacific publications to support policy proposals.

Describing the origins and motivations of Women's Weather Watch, one Convener in the focus groups explained:

“Just to add on to her story, the one [sic] of the reasons really that-- not the reason but how this idea and the concept of the Women's Weather Watch really came into place was after the big flood here in Labasa in 2003 or 2004 -- early 2004. There was a huge flood that flooded the whole town and the river, the place is where this river goes right up to that way. And the river came overflowing from that side, the river came this way, and it flooded the whole town and there were 11 people died in that flood from her community, up in that way. And yes, we were receiving weather forecast, you know been coming on the radio and some of it were not accurate because they were saying this is going to the west but then the thing came to the north and Sharon came just I think two or three days after that flood and we went around in the-- we hired a car we went up [inaudible] road which the road, and along the road we saw women washing in the drains along the road. And we stopped, and Sharon asked, "Why are these women washing in the drain when there is a river?" And I explained to her that the river is still a bit strong and also these communities are traumatized because they saw these people actually floating down on the creek those who you know, the victims. And so, the women prefer to wash in the drain for that time rather than even stepping close to the river and they are also known cultural and traditional issues. So, these stories was [sic] not known to the decision makers up there. The communication was one way this coming from there to, but women were silently really facing their problems and struggling their recovery issues and approaches to that. So, we really talked a length of time how could we improve this and one of it was

to get also get their voices to be heard and by the use of SMS and Women's Weather Watch."

Again, this story exemplifies the way in which stories that might not have been heard, for example, on access to water for washing or drinking, has utilized community media, to bring attention to climate change effects that are being experienced by the women in the villages affected by weather conditions, and the way in which innovation was carried out, through the form of WWW in responding and engaging in active resiliency to develop communication related socio-technical tools, to address the weather conditions.

In this way, the participant continues that through Women's Weather Watch, where the women can communicate about an extreme weather condition, pre- and post-disaster, and that communication efficiency and consistency would be enhanced through the network. Furthermore, the participant described how the women themselves are the best placed to inform one another about the problems that they are facing during the weather conditions.

WWW Process

Describing the processes of Women's Weather Watch, the focus groups describe several factors. Firstly, the attendees of the monthly consultations are the ones that receive the Women's Weather Watch messages. So, currently, those that are not a part of the femLINKpacific network don't receive Women's Weather Watch. The attendees of the monthly gatherings are primarily the leaders of the various women's groups, and so when they receive messages through Women's Weather Watch, they then share it with the other women's group members. Describing the way in which the content is generated for Women's Weather Watch, one focus group participant describes how she uses it when she travels to do her work. If she sees any road blockage or any weather issue, she then sends a message to femTALK. For example, there was

flooding in Sigatoka, so she took pictures of the flooding and then sent it to Sharon Bhagwan-Rolls, who would then add some description of the flooding based on what was communicated to her and a quote with the pictures, which is then shared across the Women's Weather Watch network. As described, this communication happens Fiji-wide, with twenty-one women's groups, and all the women's groups are connected on Facebook, on messenger and also on Viber to varying degrees.

Usually, at least one focus group participant notes how social media access varies according to geographical location, as some locations don't have internet access, especially when the weather changes, in extreme weather conditions and when the network is down, or simply because the women's group member doesn't know how to use specific social media tools, such as Facebook. So, when adverse weather conditions occur, a message is sent throughout the network via the different communications platforms. Another focus group participant described the advances that have been made technologically in Fiji, whereby even in the villages, or remote households, access to some communications platforms is possible. Where TV or internet, for example, are inaccessible, the (women leaders) will have access to the Women's Weather Watch network through a mobile device, so much so that even graphics images can now be shared to the remotest places. Beyond text and photo-based communication, voice communication was also described by one focus group participant and how the members of the network also connect with the network through voice calls and share and transmit information verbally, "When we hear that it's striking Rakiraki, we do ask them how are your people, and what's the situation right there. So that we are prepared, and we disseminate that information to our members. So, we are alert now. Before Winston, we only used to listen to radio and now, we are link with femLINKpacific Women's Weather Watch. So, we are very updated with the latest news that's coming."

Another focus group participant described the content format of the information being shared, in the context of TC Winston-where the main news and information channels reported the cyclone as category two, three or five, but how locally they were unaware what these categories actually mean. However, through the Women's Weather Watch, they were given information about what the wind speed of a category four or five cyclone is, explained to them via SMS, which made it much easier to understand the intensity of the cyclone. Table 3 provides some supporting statements that highlight these processes.

In addition, during one of the focus groups, one of the women leaders described the communication process, with an example of how a telephone conversation was used to report on an extreme weather condition. During this extreme weather conditions, a femTALK staff member called this participant during an ongoing depression to ask about a particular situation in Labasa. The participant described how "people are running here and there. I can see them collecting their goats even the vegetable garden was underwater. I can see because my house is a bit higher place where I am able to see".

One of the main challenges, as mentioned and widely repeated, was the issue of access to power. When phones are charged the women described being able to communicate with femLINKpacific. However, this meant that the phones had to be charged prior to the weather conditions deteriorating with the subsequent threat to power supplies, as well as challenges of maintaining a charge during outages in order to communicate with femLINKpacific during the adverse weather. As was also described during the pilot, one of the ways in which this power access issue was overcome, included using the power outlets at gas stations or through power access with friends and neighbors, but was limited if power access was through the power grid in a district. Subba and Bui (2017) describe how this is an underlying infrastructure problem and a

limitation for ICTs to be used in this type of disaster situation.

Focus Group	Process statement example
Suva	“Not only they receive the SMS from the Women’s Weather Watch only the woman network leaders like us so when we receive the SMS message we say it around and also the news communities they know that we have the update news, so they will call on us.”
Lautoka	“To me, Women’s Weather Watch really is our booster in times of disaster, or for that matter any other time, how I use it is wherever I travel to do my work and all that. If I see any pictures of like road blockage or, there was an issue with the weather. There was flooding in Sigatoka, so I take those pictures and I have to send it to Sharon. I gave it to Sharon in words and put a quote on pictures and then put it in words. Because we want to reach the wider community. Because if the flooding comes suddenly, and then she would come back and say Ok [anon], the source of information which is very important by this happened when the strike again. And it’s very important during a disaster because we are able to share the message, even with abroad.”
Labasa	“We replied to those SMS messages to femLINKpacific. Whatever situation we are in, we always reply. Tell them, what is the condition in the village at that time but not to other members. It’s femLINKpacific that will advise all the other members.”

Table 4 – Mobile Suitcase Radio process supporting statements from focus groups

WWW Mutual Support

A phenomenon that must be mentioned when working with online and offline networks is the sense of community felt by the members. One of the key processes described through Women’s Weather Watch was the way in which the social network enhances the bonds of collaboration and friendship between the members of the network. One story described the impact of Women’s Weather Watch, and the collective feeling of mutual support provided through the network, by one focus group participant:

“I just want to add on to the Women’s Weather Watch. In 2010 when there was I think, a Cyclone Amy... 2010. So, we had our co-operative shop in 2010, in February. We operated, we opened it, so I think it was in November or December I think was approaching this Amy. I was really afraid of this cyclone because of...I was one in my co-operative shop like if there's something going to happen, what will happen to my co-

operative shop? So, what I did with my husband 'Why not we gonna sleep in the co-operative shop today because of the cyclone.' So, what, at about to midnight, the wind was blowing high and the wind...it was heavy rain. What I was doing, I was just collecting all the stuff and packing it in my cattle so that if something is going to happen, I can like preserve my things, I can keep them safe. So, I was packing, packing, packing and like hours alone in the shop and my husband was like sleeping just not really sleeping but he was lying down, and I was doing this and suddenly it was like after 1, I got an SMS from Sharon and she was somewhere in overseas. She gave me a text like "What's going on [anon] And how's the weather situation in there?", all those things. And that time our radio operating was no electricity and it was dark light and then the radio was off. Everything was...no need to explain. But I had this mobile where I was able to get the SMS from Sharon and when I read it at 1 o'clock when I go to SMS and I just read, and I was start [sic] crying. At least, my heart was saying that I was just praying, praying to God like [sic] skipping everything safely. So, when I receive this SMS from Sharon at about 1 o'clock. I just...my husband "Wake up, wake up! We have a text from Sharon." At least it feels so happy to my heart that at least somebody is with us today. We have a feeling that we are alone, nobody is with us. No, no, no, no one can help us or no conversation. Nothing was going in but when I received this Women's Weather Watch regarding this cyclone, she was asking me what is going on? What is happening now, all those things and I thought that at least got somebody is there to help us."

The characteristic described, shows how through the network of women as part of WWW, utilize the network to enhance emotional resiliency and support through the extreme

weather condition, and connect with one another through the network, to provide accompaniment to each other through the extreme weather conditions.

WWW Advantages

The women leader participants of the three focus groups identified and explained many advantages of Women's Weather Watch. The sub-categories of the advantages are described as follows:

First, Cost. The cost of ownership of mobile phones, as well as the low cost of sending SMS text messages was described as a strong advantage of communicating through Women's Weather Watch, as opposed to the cost of using the internet or other communications tools.

Second, Range. It was also described how through the Women's Weather Watch network, information could be shared easily around the whole of Fiji quickly. For example, a participant described the ability to know what is happening in Lautoka or Suva while living elsewhere and at the same time receiving calls from family or friends, who could hear about weather conditions happening in her own area, "Most of the time my friend in Suva they always call me again and ask about, 'What's the news there?', 'How's the weather like today?'. And I always, 'Ah, the weather is fine, not fine.' That's how... it's very informative to me."

Third, the Simplicity of Language. Focus group participants describe how with mainstream media reporting, they and the women in their women's groups often find the scientific language used difficult to understand, and so the text messages and information shared via Women's Weather Watch is simpler and more readily accessible. For example, they explain-what a cyclone category means, and describe the preparedness required for a weather condition, rather than just stating the technical description of the impending weather.

Fourth, Ease of Use. One focus group participant describes how the use of Women's Weather Watch is a quick and easy way to share weather data around to the village women through text messages. So, even though radio is effective, this may be a more timely and direct means of communication.

Fifth, Mobile Phone Access. Generally, across the focus groups, the women leaders described how most women and girls have access to a mobile device, at the very least a simple device able to receive the Women's Weather Watch messages. Furthermore, it was described how many of the younger women listen to the music radio stations through their mobile devices, and so don't receive weather warnings. By having access to Women's Weather Watch SMS messages, they get access to weather information that they might not otherwise receive, as they don't listen to the relevant radio broadcasts.

Sixth, Accuracy. There was strong re-enforcement of the idea that the weather reports shared through radio announcements or other mainstream media, seemed to be inaccurate or uninformative compared to the information that was received through Women's Weather Watch. Three short narratives from the women leaders in the focus groups emphasize this:

"I just want to add on to radios, sometimes, they have a special time for them to announce the weather but with the weather watch, they always text us the right thing at the right time between the striking us. Just for example from the last Winston, I was in the market and Lautoka has really good weather, but cyclone was still just 10 miles from Vanua Levu. In the market, in town, it's good and I live in [anon]. I was still selling in the market with my friend. My family were already facing the problem there for strong winds and raining [sic]. When they call me, I said, "No, in town, it's really good weather." I come right in the afternoon. So, they said, "You come now, the weather is

really rough. That's just the side of Lautoka town," and when I reached home, it was really bad. But in town, it was really good weather. So, I received a text from femLINKpacific that you have to be prepared. Now, the striking of the cyclone is here in Lautoka but I was still in town at that time. The radio station did not give us the correct information but that is why Women's Weather Watch is updating."

A second story describes how:

"Radio is like as [anon] has already said it's not very clear. At times, it gives us the wrong timing of the disaster that's coming. The information is given in six hours or four hours' time whereas our SMS message in thru Viber and Facebook, we get instant messages from our femLINKpacific Women's Weather Watch. Because we are given a correct and timely message, it's very instant, whatever is happening around our country or even out. It's too far like 600 kilometers away or 800 kilometers away, we are updated. We are asked to be prepared for the disaster that's going to happen, will it be rain or flooding and cyclones or whatever. They are very effective and us, when we receive the message, we disseminate to all of the members of our community through our clubs. Most of the women and girls or even the residents, they have mobile phones. So, it's very easy using these devices."

And, finally a third story describes:

"As for Women's Weather Watch, so we heard this morning that when we were, a very good example when we had Cyclone Winston we were getting home on the radio broadcast, the weather forecast was not consistent, and almost did not match with the weather condition during that time. But luckily with this, Women's Weather Watch, the message from it was very accurate, I could say. I was just observing when I heard the

weather news, and I said, "Oh, it's coming. By six o'clock, it will be in Rakiraki maybe short time here and there." But there are sudden talk and talk as we connect it to the women across the country normally during this time we talk over the phone. In Suva, when the radio was broadcasting for [sic] the weather news it said in Suva it would be very serious. When I talked to the lady there, she just say [sic], "Nothing, nothing. Don't worry," and this time in Lautoka, we're experiencing only the bit [sic] of rain like he said, but in Rakiraki it matched with mobile weather watch."

Table 5 provides further supporting statements of the advantages described for Women's Weather Watch.

Advantage	Supporting statement
Cost	"So, for me, it's really helpful these mobile devices saying Women's Weather Watch because the communication with the mobile devices is like cheap."
Range	"We're able to know what is going around in Ba what is going around in Lautoka and Suva."
Simplicity of Language	"When Sharon messages us the message is in such a form that everybody can understand. Very simple, very simple. At times the weather comes out of the radio, even the tv's, very difficult, we can understand but others, they can't understand, Sharon's messages in our Women's Weather Watch is very simple everybody can understand."
Ease of use	"With the radio, it was good too but with me, with SMS messages, it was much easier to pass and effective."
Mobile phone access	"Just to add on, the majority of us nowadays, we have mobile phones. Mobile phones are one of the easy ways of passing the information from one person to the other. It really helps us a lot. These include the members in [sic] my community. It texts us the information of the weather, updating weather to me, for myself to update it to the communities. SMS and text message from femLINKpacific was very effective."
Accuracy	"Radio is like as [anon] has already said it's not very clear. At times, it gives us the wrong timing of the disaster that's coming. The information is given in six hours or four hours' time whereas our SMS message in thru Viber and Facebook, we get instant messages from our femLINKpacific Women's Weather Watch."

Table 5 – Women's Weather Watch advantages and supporting statements

Women's Groups, Consultations, and Inter-Ethnic Features**Women's Group Activity**

Initiatives described and carried out by the women's groups, are shown in Table 6 below:

Initiative	Supporting statement
Diwali bread-baking Program	And then, we started our own personal bread baking program in our club. We bank the money, and just before Diwali, we take out the money, and then we, whatever what the members said, they just take their share out, so I think that's a good fund because they don't have mostly depend on the husband because doing Diwali is a very expensive period that time.
Wedding garlands and attire	And then I let them, we make the garlands for the weddings because of the Indians, they use it. So, it's very expensive, a garland is just the hundred dollars right there. So, we do that, and doing the wedding, and then we have all saris. And in my group, I have a tailor. What we do, which is from that saris, we just make sulu-trama, and then the top, the national attire, and then kamizeno, we just make, we use olden-ed saris, and then we just sell it.
Backyard gardening	There's another money-making, and we do backyard gardening. We had the drainage problem, but I joined in femLINKpacific, so we started complaining about the drainage, and the outcome is now central. They send laborers to clean that drain, they sprayed, so we don't have the flooding in a while now. It's so good that we can do our backyard gardening, even the flowers, too, we can sell them.
Village savings scheme	Savings scheme we save up about five thousand dollars, something we need. That this just through fundraising we do with each clans [sic] to finance our village
HIV Awareness	For the Rainbow Bright Foundation, we've been doing lots of condom distribution to all communities of the young youths and to the sex active people and also we've been doing HIV awareness to the communities in Suva and Nausori.
River and garbage cleaning	At this time, we stay in the river so everyday people used to dump their garbage in the river. And now we're trying to stop them, we clean the riverbank. If you go past our village, you can see plant of flowers there and some big tires plus tires on the rivers and the roadsides with old trees with branches and we hang the plastic bottles and plant the plants there it's very nice. So, nobody's dumping the garbage there and we kept the people there, three phases for placing the rubbish, we pay to take the garbage. That's three hundred dollars, just to put the rubbish. For one house we should give ten dollars a month. Every day we collect three dollars a week in the village
Community service	We do a lot of domestic training, suicide, murder. We also do catering, when people they want us to come to the wedding or something. They ask us to make food and other stuff. We go, we make sweets, food and we also do community work where we, sometimes we use to clean. We used to clean community backyards, we also paint, do the painting of that. We go to temples, we clean temples, we go in there in the school also, because in the schools if they need anything our mothers provide it there. And in a community, if a person's very poor and they were gone, pay the electricity bill or something like that. If they need food in their house, they just come and talk to our group and we do something for them. Just like we give them. It has been running for five years, and in this five years, I think we have done a lot of workshops.

Table 6 – Additional initiatives described in Radio with Pictures

One focus group participant described an initiative in her role working with a community of 150 health workers. She recounted how, going through the district level, she fought for gender equality by addressing the inequality of paying the village headmen and not paying the community health workers. The end of this process resulted in community health workers getting paid since August 2016, in the 14 provinces in Fiji, with a total of about 1701 community health workers affected positively. She described that in order to finance this, the village headmen began to receive half pay, and the savings supported the payment of community health workers. She explained that for the settlements in the pre-urban areas, they were going to work together with the advisory counsellors to get pay for the community health workers. This obvious success has pleased the representative as she feels that networking with femLINKpacific through the media, including through TV, has resulted in the government recognizing the good work that the community health workers were doing in their communities.

Women's Groups Impact and Challenges

Some of the impacts of the women's groups that were described by the women leaders, other than the economic and governance initiatives described above, include the processes of the women's groups themselves, including the enhanced ability for expression in English by the women participants, with a woman leader commenting, "They really can speak fluent English now because they are really educated." Another impact of the groups is the bringing together of diverse women in terms of both age and ethnicity. One women leader participant described how her group has women from the age of 70 to young mothers aged 18 to 20. Another women leader mentioned how her group is multi-racial, something quite innovative in the Fijian context.

The women's groups report three main community challenges. Firstly, there are the issues to do with flooding whereby one-woman leader described how, "The only problem we are facing is the flood." She stated that when it rains, they worry about flooding as her village is near the Nadi river. She was seeking the installation of a floodgate by the authorities to stop soil erosion, as well as ending the flooding of gravesites near the rivers. She reported the challenge in getting the floodgate proposal into the government consultation process saying, "We must listen to the men to talk and empower the people. They don't want me but I talk in the village meeting, I have to raise my voice. I have to raise my voice at last we have the resources for my village."

Finally, another challenge raised by the women leaders included the issue of street lighting: "So one of the issues that we are facing now, we still do not have street lights for the children. They go out into the dark and the safety of the women as well. Some of the village they finish work, or they go to the farms and all that and sometimes at this time, by six o'clock, is very dark and I feel one of the issues that we face now is the street lights." This again exemplifies what 'voice' is being expressed in relation to RQ1.

Governance Processes, Impacts and Challenges

As is evident from the women's words, state administrative policies and procedures are of high priority. Governance processes, impacts and challenges were described by the femLINKpacific staff and women leaders. It was described how there are only 3% of women in advisory councilor roles and there is no capacity building for advisory councilors and no accountability mechanism for local governance structures. The national goal of achieving 30% women in decision making hasn't happened in 12 years, but femLINKpacific has been documenting all the stories about this over the time. In terms of actual interaction with the government, the staff members described three main processes in this interaction. Firstly,

transcripts are made of all broadcasts, including from Mobile Suitcase Radio and from the radio station itself, and then quotes that support certain policy objectives are put into policy briefs that are sent to the government body that influences the particular policy all the way down to the grassroots level. So, for example, if there is a certain food policy objective, quotes from various regions are put together to support that policy. Secondly, there is the production of a publication called “Herowins” a comic with a female heroine that has certain perspectives and objectives to influence policy, and allows policy makers to interact with the content, rather than it being just a dry policy document. It is also more appealing to a younger generation. “Herowins” is also shared as a community document, to educate, in an informative way, about how to prepare for extreme weather conditions, as well as to create a positive media character for young girls. This “public sphere” document highlights another way in which the media platform gender balances media content, specifically concerning public information, that may not be addressed in government-produced public service announcements and publications. Finally, the femTALK staff explained the good relationship they have with the National Disaster Management Office (NDMO). Although they don’t do mass communication, in terms of producing mass national SMS messaging or working with the NDMO to provide messaging support, femLINKpacific does have an arrangement with one of the cell service providers, Digicell, to send messages about reproductive health and other relevant matters.

Describing the way in which women’s particular needs are catered to by government services, one-woman leader in the focus groups questioned the prioritization of the targets of the services. The participant described how in Fijian cultures they do not appreciate “complaining,” or even the use of that word; so in the consultations through femLINKpacific they have created their own language to use the word “priorities” rather than “complain.” Looking at government

services, and the women's interaction with the government, they then talk about what their priorities are and share their perspectives on solutions. This happens through "Radio with Pictures," and is seen for example, where the women participants in the panel discussions speak on the radio, and are broadcast on TV, describing the challenges they face, and what priorities should be. This can then influence government policy and educate the government as well on the women's perspectives. One focus group participant shared how she felt they were able to influence government, particularly from the rural perspective and the challenges of how the government is informed about rural issues, "Because most of them are city people, we call it you know in our language, *susuvanurai*. It means they grew up eating bread, so they wouldn't know our context eating *dalo* and cassava. So, in this way we need to educate them about how to develop our community. And a lot of things being raised by these women, how to improve roads, how to support sugarcane farmers and agriculture and even how this government system and such as could be improved by involving more women participation."

In this way, the women leaders find that not only are their perspectives heard around the table of decision making, but their perspectives are voiced through the community radio and heard and taken into account as part of the whole machinery of development in Fiji.

Women's Groups Economic Initiatives

In the context of the women's groups, the women leaders further described economic initiatives, including agricultural enterprises, and some of the challenges associated with them. In this context, three economic initiatives were described – a poultry farm discussed earlier, a kitchen business started by 12 young women in 2015 and a bakery. Four specifically-targeted

agricultural economic initiatives were also described. Firstly, one-woman leader described a seedling nursery and beekeeping,

“In 2013 we had one shop in like in a village we were able to learn how to preserve our seeds. So, I have a lot of idea about preserving seeds. I have my own nursery where I am selling seedlings to all the farmers around my village and even to town, even I'm selling it to an agriculture whoever gives me orders and I am empowered for farming. I can say I have also a bee farming where I am looking after my bees. I am loving my bee farming because the price of bees is going high and apart from that we like... woman's be, woman's Indians, we must now be empowered.”

Secondly, another woman leader described sugarcane farming, in which part of the year the women in their women's group harvest sugarcane, and then in the other part of the year, outside the harvesting season, the women in the group, make beach material related decorations by going out either in the night or day to collect shells, etc., and thus generate income for their families. Two categories of challenges related to these economic initiatives were also described. The general economic initiative challenges included reports of how the income women raised was still not enough to provide for their family's needs, including schooling. In another community where 16 households don't have access to electricity, this was seen as problematic. Another challenge was described for one women's group co-operative shop:

“We have a co-operative shop, at the moment, we have closed co-operative shop due to... because the price of goods and too much license for the co-operative shop and even now what the government is saying that they want all different type of goods, have different license like bread. If you're selling liquor. So, we have to pay so duties bit the expensive all those things even not been able to make much profit because of this bad system. So, at

the moment, our co-operative shop is closed. We just doing hard work to be able to operate once again. We have start like some of some kind of...at least we get some donation from some other groups.”

Four agricultural initiative challenges were described. One women leader explained how on her poultry farm, she had an issue with chickens pecking each other during the dry season, and so she decided to cut off their beaks, after initially going to the Ministry of Agriculture for help. Another woman leader reported the challenge that most of the land ownership is under the husband’s name, even though the women do the agricultural work. Two additional challenges were also described in the context of land issues, with one-woman leader describing how, “In an upcoming policy document, we are highlighting that women, particularly from a racial perspective can be chased off their land, so we are highlighting a need for a change in legislation.” The land-related issue of drainage was raised by another woman, when after rain bad drainage causes flooding and then loss of crops. The woman leader described how women’s committees are able to talk to councils about ensuring adequate drainage through ditch clearance.

RQ2 Tropical Cyclone (TC) Winston

In terms of economic challenges and successes especially during this time, it was found that TC Winston proved an excellent and relevant case study that simply couldn't be ignored.

And hence, RQ2 is:

How did and are women in rural Fiji utilizing mobile devices to interact with community radio in response to Cyclone Winston⁷? What effect, if any, did and does such usage have on mitigating the effects of Cyclone Winston and resilience factors?

The themes that emerged for this category, included the way in which WWW in particular, as well as the other venues and platforms, were used to enhance sharing and generation of knowledge for the Tropical Cyclone preparation and generation of knowledge, post-Winston recovery, and other communication factors. Another revelation was how WWW was utilized in relation to TC Winston. Uncategorized data is also included in this section as they were considered to be miscellaneous factors that were connected with TC Winston.

TC Winston Preparation and Traditional Knowledge

In 'Radio with Pictures,' extensive indigenous agricultural and food security practices were shared, which, in the context of RQ2, exemplifies the way in which resiliency to the extreme weather conditions is enhanced, through the incremental capacity built over MSR, WWW and the community meeting spaces. In total, there were over 30 individual traditional food preservations, environmental knowledge or similar that emerged in the discussion. The themes show the range of traditional food practices, infrastructure preparation and challenges, connected to TC Winston and were described in the 'Radio with Pictures' series analysis. This

⁷ A severe Tropical Cyclone (category 5), that was the strongest tropical cyclone to make landfall in Fiji and the South Pacific Basin in recorded history, in February 2016.

summary of the practices, preparation and challenges described highlights the way in which local ‘voice’ and local issues are promoted through this platform and provides an example of what those perspectives are.

TC Winston Effects and Post-Winston Recovery

Since TC Winston, in the ‘Radio with Pictures’ discussions, the panelists discussed a number of post-Winston effects. Some effects described included the information that since TC Winston there has been an increase in cost for market vendors. This includes increases in the costs for food, transportation and tables. The panelists also described how some of the settlements never received information about the impending bad weather and therefore were most severely affected.

Furthermore, specific requirements were highlighted post-Winston, including the need for the disaster response to include psycho-social services with trauma mitigation and peace healing, which could also draw on skills from the arts. Support with the provision of seedlings and advice on planting was also stressed as important.

The effects on local life described during TC Winston included food and water access effects, as well as communication and weather effects.

Other TC Winston Communication Factors

Looking at other communication factors related to TC Winston, and the ways in which communication about Winston took place and informed the population, particularly the women in the rural communities, a few additional features were identified. Firstly, the radio broadcasts were identified as the primary means for the dissemination and receipt of information about the weather conditions. The women leaders in the focus groups described how they relied on SMS

messages and radio, before, during and after Winston, but that after Winston they had a power blackout and couldn't send messages, so they had to rely on the radio. After a few weeks, they then started to be able to charge their mobile phones again and have access to messages.

Secondly, in the absence of full communication resources, the transmission of information about Winston then took place by word of mouth. One-woman leader described how, "In my community, word by mouth, we just did call at homes and my neighbors that the cyclone is coming and it's category five. And we do that with neighbors 'this cyclone is coming' so it's just word by mouth information that's how we will and then during the FemTALK, femTALK (sic) text us information the on the what the updates so that really help us in sharing the right information because sometimes when my neighbors come and gives this information and this the wrong information that they did sharing." Another focus group participant explained, "Hey it's just the same. We received it from the radio before. During the cyclone the power cuts, so we never receive anything we just contacting each neighbor just from your house to the next house and call what's the problem, sharing. After the cyclone then we just wait for the DOs and people to come and have a talk with us and look after the what is damage and what we need for our house and for our families."

Finally, another woman leader focus group participant discussed the role of the advisory councilors in providing information about the weather conditions. She described how she went to the district area administrative office who informed her about the impending weather conditions and then she informed the public. She also described how the radio information is neither correct or clear, but after Cyclone Winston, her organization joined FemLINKpacific to receive the Women's Weather Watch and SMS messages, Viber calls and Viber messages. During Cyclone Winston she stated that they had to make their own phone calls to the district

office to give information, including details about what was happening, that the houses had been blown down, how many people had died and how many people were living in completely or partially damaged housing.

TC Winston Women's Weather Watch Communication

From the focus groups the role of how Women's Weather Watch transmitted information before, during and after TC Winston, was shared. One-woman leader from the focus group described:

“Because normally when we get the messages we normally see it in the TV or the radio. So, what happening Winston time at about twelve o'clock, Saturday the radio was off, switched off. And there was no electricity, so we can't watch TV news. So, there was only the mobile we were able to get information and the information was, we were getting it only from Women's Weather Watch. That's why we can say that Women's Weather Watch is simpler, short and simple and able to get information. For my information, I can say when this Winston when it was approaching like we were hearing in radio that it is approaching to Vanua Levu and we were frightened like it was saying category four and then after that category five and then we were wondering like my mother-in-law she came to market, on Saturdays she always does so she came in the morning because it was a sunny day. She came and then we were hearing in the radio that it's approaching this time it's going to approach Labasa and then after twelve o'clock somewhere around twelve everything was down no network, like no radio, no TV. So, only the mobile we were able to read messages and what happened it crosses Labasa in about I think, one or two o'clock and went to Savusavu and went away. And me and my

family we were still waiting for Winston, because we did not have any idea that it already gone to Savusavu now going to Viti Levu. So, through my mobile I got a SMS from Women's Weather Watch that it already crossed-- three o'clock I got SMS-- that it already crossed Vanua Levu no more chances of any problems so it already crossed on Vanua Levu now it's going to Savusavu. And I was, one thing that is going to come might be after six or what I was preparing like clothing, or putting the [inaudible] all those things through our house and telling the neighbors to do that because we were wondering, we were thinking category five is a very strong one the first time ever in she has said we heard in radio, first time ever it's coming to Labasa or Vanua Levu, or Viti Levu. So, we were during the operation but it was good we got SMS from Women's Weather Watch that it has already gone from Labasa so we were happy it didn't hit."

In terms of the actual content of the messages through Women's Weather Watch, two primary characteristics were described. Firstly, that the SMS messages were less than 100 words, and secondly that the messages were written in a way that is understandable to the rural women network. And, as the above narrative describes, the content that described the extreme weather condition, is often more accurate and timelier than the weather reports shared through the traditional weather reporting on traditional media.

6 DISCUSSION

In this discussion chapter, there will be a presentation of some of the key interpretations and the significance of the results and analysis that was just presented in the previous chapter. This will firstly be discussed in further details, along with some of the ideas of “mutual support” that have been presented, followed by discussion of the ideas of “voice,” and “acclimatization and capacity development.” The next section of this chapter will continue with perspectives of one of the key findings, namely that of the “inter-ethnic and cultural features” of the women’s groups. The remaining sections of this chapter discuss the findings presented in the previous chapter in the context of the theoretical framework introduced in Chapter 2, including post-development theory in the Pacific, participatory communications for social change, inclusive innovation in the Pacific, contemporary discourses in communication for international development, Pacific women, development and the environment, and Pacific media and development. Finally, there is a section of my voice and experience as a researcher in this process, and the meaning of the study.

Key Results and Research Questions

Looking at the results in the context of the research questions. First, in the context of RQ1:

How do women in rural and agricultural communities in Fiji utilize mobile devices to interact with community radio? What effect, if any, does such usage have on their realization of praxis, voice, and generation of knowledge as an alternative development paradigm?

Mobile Suitcase Radio can be seen to realize voice and praxis in the way that the rural women are able to speak and be heard through the platform. In addition, the voice of the women is also realized whereby there is an audience for their issues through the femLINKpacific

publications. Voice, praxis and generation of knowledge is facilitated through issues being shared at the monthly consultations, and greater awareness is brought to the issues. With regards the capacity building processes discussed we also see that Mobile Suitcase Radio and its associated processes assists with this realization. As has been discussed, when the women in the rural areas hear stories from other rural women that resonate with their own experiences, particularly for the market vendors, they feel empowered, a direct corollary to voice, praxis and generation of knowledge. Through the Mobile Suitcase Radio and the women's gatherings, economic initiatives and challenges described are also a direct realization of praxis, in terms of defining their development focus as being able to put food on the table for themselves and their families, to enable peace, and as a result seeing themselves as the protagonists of their own empowerment and serving as models for the development of their own hopes and aspirations and bringing those into practice. When looking at the discussion of the National Development Plan, it is seen that "Radio with Pictures allows for the commentary at the policy level, in the public sphere, and a national media platform. The women's groups, as was described, assist with alleviating poverty, providing group members with shared spaces to discuss their issues and have specific social and economic development agendas, which also creates an understanding of the women's voice and action on their own social reality. The ability for the women to enhance their expression in English is promoted through the various platforms and processes, as well as community challenges addressed through these same platforms and processes. Through Mobile Suitcase Radio, Women's Weather Watch, Radio with Pictures and monthly gatherings, women's participation in governance has yet to see full realization, as very little inroads have been made to women's participation in governance structures, primarily, as yet, there are very little overall structural capacity building processes for advisory councilors and no accountability

mechanism for local governance structures. Finally, the policy briefs, ‘Herowins’, and femLINKpacific’s collaboration with the National Disaster Management Office, realize the ability for women’s perspectives to influence governmental policy and contribute to discourses at a policy level.

Following, in the context of RQ2,

How did and are women in rural Fiji utilizing mobile devices to interact with community radio in response to Cyclone Winston⁸? What effect, if any, did and does such usage have on mitigating the effects of Cyclone Winston and resilience factors?

We see that through Women’s Weather Watch, the women are able to send SMS messages to each other, including to family members, relatives and neighbors, not just about weather information, but also for weather preparedness. Furthermore, resiliency is enhanced by involving women to also communicate at the same time when there's an extreme weather change, when it's approaching and when it's finished, pre- and post-disaster. The advantages of Women’s Weather Watch, including cost, features etc., characterize the way in which Women’s Weather Watch is utilized in the context of extreme weather conditions and furthermore, the indigenous food and traditional practices, similarly characterize Radio with Pictures. It was seen how, other than Women’s Weather Watch, during TC Winston, radio was the primary means of communication to advise about weather conditions, but word of mouth communication also assisted with promoting resiliency during that event. Finally, we see that the advisory councilors provided information during TC Winston. This is reflected in the idea that equal participation of women in understanding the reality of local communities, with women serving as advisory

⁸ A severe Tropical Cyclone (category 5), that was the strongest tropical cyclone to make landfall in Fiji and the South Pacific Basin in recorded history, in February 2016

councilors, would further enhance governance structures understanding and response to extreme weather conditions, such as TC Winston.

Voice

In assisting with the stated objective of achieving greater participation of women in governance structures, the monthly women's gatherings and 'Radio with Pictures,' as well as Mobile Suitcase Radio, have provided enhanced capacity development, albeit with very modest inroads so far into women's participation in formal government decision making roles. In particular, spaces have been created for developing the capacity to be able to discuss issues faced by the community, through the women's monthly gatherings for the women who represent various religious, inter-ethnic, LBGTQ, mothers' and other groups.

The women leaders recognize that for the most part, the women in each of the communities tend to have much more detailed knowledge of the needs and lives in their areas and so are able to understand what the needs of the community members are. For example, the need for adequate clean water supplies, the lack of medical services, no street lighting and so on, are topics that can be articulated by the women's monthly gatherings, which they then are able to present to the relevant government leaders, having developed the capacity and confidence to speak about these points in the women's gatherings. Views about these issues are then also broadcast through Mobile Suitcase Radio and 'Radio with Pictures.' This realization of voice includes two main characteristics as elucidated by the focus groups and interviews. First is the identification of development goals and definitions of peace by the rural women themselves, which is then disseminated through Mobile Suitcase Radio and 'Radio with Pictures,' as well as through policy documents shared with government decision and policy makers. This includes supporting content from "Women's Weather Watch" and other sources. These development

goals include the idea that peace means being able to put food on the table, economic and food security, adequate infrastructure to support economic security (for example, access to roads for travel to market) and freedom from domestic violence, as well as access to clean water, among other objectives.

Mutual Support

A key finding from the discussions, with the women leaders during the course of the focus groups, was the idea that Women's Weather Watch, Mobile Suitcase Radio and the monthly women's gatherings that are held, facilitated by the Conveners, provides a space for strong mutual support. That is to say, these events create a space for building social networks and social capital, and provide emotional, material and intellectual assistance between the women, amongst other things. Looking at each communication tool in turn, Women's Weather Watch was able to provide factual information to women in each network, in every phase of the cyclone. In particular it was able to contribute valuable information about ways to prepare for TC Winston, from predicted arrival time of the cyclone, to information about how to preparation for the cyclone. This was done in clear, understandable language, unlike the material provided by traditional weather reports. This was complemented with shared knowledge of indigenous food storage practices, such as drying mangoes or protecting taro crops in the fields in preparation for the cyclone. One of the strongest statements expressed during the course of the focus groups was from one participant who felt the emotional support gained by receiving a phone call from femLINKpacific during the cyclone, when huddled at home, not knowing what was going to happen, was immense. Being asked if everyone is okay, and feeling the emotional support garnered from someone checking their wellbeing, was all facilitated because of access to a mobile phone.

An additional characteristic in terms of mutual support that was noted during the focus groups was the way in which the women's groups, as well as the groups in the radio-facilitated network, are in many cases, inter-ethnic groups. Two factors are of note, in this context. Firstly, through the women's groups, as well as other inter-ethnic groups, traditional women roles, were seen to be overcome. The women leaders noted that Indo-Fijian women in these nurturing settings were more vocal and "spoke up" more. Secondly, and as Laura Liswood, Secretary General of the Council of Women World Leaders (Liswood, 2017) has stated, homogenous groups don't come to better solutions, but think they do, while heterogenous groups do come to better solutions, but don't think that they do, creating solutions in terms of enhanced performances, more decisions, more questions, breaking down favoritism and so forth. One example noted by one of the women leaders from an inter-racial group described how their group was formed to address poverty and land ownership issues, but then decided to start a poultry farm, and managed to address some of the challenges faced by their farming initiative. Similarly, another inter-ethnic group leader reported how the group learned about each other, by sitting, talking and eating with together, and through this process the Indo-Fijian women in this group were able to develop literacy skills and go beyond the home-settings to which they were previously confined. This same group also consulted as a body, developing different ideas, including applying to bring electricity to a settlement and starting a co-operative shop to generate income for the women in the group.

Inter-Ethnic and Cultural Features

One of the focus groups included a discussion of its inter-ethnic features. In another, one of the Indo-Fijian women explained that in her multi-racial group, where she was the vice-president, there was a Fijian president. Another woman leader described how, with her multi-racial group, the feature of being multi-racial strengthens the group. She reported how in many

settings she is just with Indians, but with her multi-racial groups, she is with Muslims, Fijians, and Indians all together. She further emphasized how in particular she appreciated the many ideas that came up to address community issues from the diversity of voices.

Some of the challenges faced by multi-racial groups, as well as multi-racial communities were also described, primarily to do with the traditional values of the role of Indo-Fijian women. Six women in one of the focus groups explained that prior to the women's groups, "We were Indians and we were just like Indians that we only like illiterate. We just married, and we have to just look after the household, your in-laws and your kids and your husband; just cooking, just staying in the house and you do household, not to go outside, having meetings or consultations like this." Another woman leader described how when she first started her group, they found challenges amongst the Indo-Fijian women not being able to speak in English because of their standard of education, while two other Indo-Fijian women described how, Indo-Fijians don't come outside or go out to any place meetings, as they have to stay home to do their work, stating that, "They are not supposed to talk outside their boundary." Boundary being defined as the norms and cultural values that are defined by traditional Indian culture. As one paper notes (Safran, 1991) – many times Indian diasporic communities adopt values and norms that are more traditional and conservative than those found in the home country, as a way of maintaining cultural identity. This may be seen to be the case in this scenario, whereby, many of the women adhere to conservative gender roles – such as being confined to the home, or being engaged in employment, or access to education.

In this context, and also when exploring social prejudices and challenges, LGBTQ issues were also raised. The women leaders recounted the prejudices that were experienced in the community. One-woman leader described how:

“Most of the time we always get together in Suva the whole of Fiji, we share our stories and different stories from different people but the whole story is just about discrimination from community. Some of the LGBTQ women are farmers and they're working well in the government departments in different organizations but still, they do face problems in their community even in health organizations they face community discrimination. Even when they go to school. They are very hard to be access to school, some of them, just because of being LGBTQ.”

In overcoming these challenges, one of the women leaders describes how, “It was challenging on that part. So, I have to go and visit their husband in the family, talk about that, so the husband they allow them to come out.” With the multi-racial groups one of the Indo-Fijian women described how with the women’s groups they have been able to learn from each other, as regards things like habits of eating, cooking styles, seating styles and how to welcome guests, in particular from the iTaukei women. They also learn from each other in terms of ways that they pray together, for example starting the women’s groups with a Hindi prayer or going to the villages and learning about the iTaukei values, goals and customs. The women leaders from the multi-racial group expressed that in this diverse context they learn a lot from each other in many ways.

In regards to diversity, it’s worth discussing my role in the study, especially as a male researcher in the predominantly female context. This was specifically assisted through three main dynamics. Firstly, I utilized my social network, friends, former colleagues etc. to develop informal references and introductions to femLINK, to gain an understanding and trust for my background and communities, which gave a frame of reference for my work and values. Second, the cultural liaison assisted greatly in terms of creating a cultural anthropomorphic Rosetta stone,

by which the participants of the focus groups had a frame of reference and point of trust and clarity of explanations, in engaging with the focus groups. Finally, from both the first and second round of interviews, there were champions in femLINK who supported the project and facilitate organizing focus groups and promoting the project internally.

Supporting the argument therefore that culturally diverse groups, although faced with challenges, are more effective at addressing community issues, Davies et al. (1996) note that “culturally diverse groups produced a significantly higher number of non-redundant, realistic ideas than homogeneous groups.”

Acclimatization and Capacity Development

Additional features that are worthy of note, and an unexpected finding, are the processes that ‘Radio with Pictures,’ Mobile Suitcase Radio and the monthly women’s leaders’ gatherings promote. At a meta level, it is clear to observe that there is a process of gradual acclimatization and capacity development that takes place within the context of all these tools and venues. In the first instance, the women who participate in the women’s gatherings are already identified as leaders in the context of each of the groups that they serve, either as a president, secretary, founder, etc. Combined with this, the ‘Mobile Suitcase Radio’ platform accustoms the women leaders, as well as many other women, to become acclimatized to speaking in a media space, and hearing their voices on a media platform, so that they are increasingly comfortable speaking on media. In the next phase, the women leaders, in particular, then participate in a panel type discussion, facilitated by the founder of the community radio station and media organization, for ‘Radio with Pictures’ which takes the discussions that have been held at both the monthly gatherings and on Mobile Suitcase Radio to a national stage whereby the women share their

stories, successes and challenges on a nationally televised slot once a week. After Tropical Cyclone Winston this included their own and other group challenges with the weather conditions and the cyclone aftermath. In a similar pattern, some of the women's monthly gatherings are also held in venues akin to those found in government decision making structures, for example in board rooms and government offices, where the women leaders can participate in leadership training workshops, as well as discuss ways in which to address issues faced in their communities. These cumulative processes, therefore, enable the practice of capacity development in an environment and setting that is in effect leadership in practice, in that the women are able to take the leadership skills for their groups, and influence government and the public sphere through the media. Issues that are raised on "Radio with Pictures" and Mobile Suitcase Radio bring awareness of the problems being faced by the women in rural communities to national attention. In this way, it is possible to see that this is in fact an informal leadership structure, whereby the women leaders, in some cases in formal government roles as advisory councilors, are exercising leadership and influence through economic development, infrastructure development and weather condition response, outside of the chiefly or formal government structure. Another example of this is the format of "Radio with Pictures" whereby the women leaders share the practices that assisted with emergency weather planning, such as traditional practices for preparedness, as well through the discussions of what should be included in the National Development Plan. One aspiration expressed on "Radio with Pictures" stated, "Women should change to take on decision making. Just dialogue with male counterparts can create change". Furthermore, one staff member interviewee noted that, regarding the women leaders, "If they tell you that they want, for example a bridge near the home they say why they want it and tell you how we can work together in doing it, and they'll tell you who will use it and

what will be the benefit. They know their stories and their recommendation and what can be done.”

Findings and Theoretical Framework

With the perspective of the collected data and results, the following section reflects on the theoretical framework presented in the second chapter of this dissertation.

Post-Development Theory in the Pacific

As described, one of the main features of post-development theory is the formulation of alternative development paradigms, as opposed to the traditional perspective of a continuum of nations moving from developing to developed, within a western hegemonic framework (Escobar, Rahnema et al.). From the results, it is clear that one of the stated goals of femLINKpacific and reiterated by the respondents to the interviews and focus groups, is the idea that a desired development goal is the realization of peace. They further go on to define this idea of peace as being able to walk down the streets safely and being able to put food on the table for their families. This development goal relates directly to the United Nations Sustainable Development (United Nations, 2015) goals: one (no poverty), two (food security), and sixteen (peace and justice). femLINKpacific stated goals are derived from UNSCR1325 – therefore, we see that this development goal is concurrent with international development goals, although it is unclear how much of it is self-derived or influenced by the policy goal – most likely this is a reciprocal process. Sustainable Development goal number five, gender equality, is also clearly outlined by both the purpose of femLINKpacific, as well as by the staff and women leaders, particularly in closing the information gap and gender bias in media. Furthermore, as described in the impact of femLINKpacific, the issues and concerns of the Fijian rural women are also understood and

affirmed, which includes those that define their development paradigms. These as described include community governance issues, such as access to water and electricity, problems where they find solidarity with other rural Fijian women and other Pacific islands women through both the femLINKpacific platforms and partnerships with other radio stations across the Pacific region. Other development issues identified through this process include highlighting human rights issues in panels and shows, interviewing inter-ethnic, inter-faith or sexuality-based groups in panels, as well empowering women to speak up about community issues and run as advisory councilors, therefore enhancing women in all levels of decision making.

Through the Mobile Suitcase Radio platform, it can be seen that the voices of rural Fijian women, including their issues and perspectives, are given a hearing, not only through the platform itself, and but also through publication in the community radio times, again realizing the expression of development perspectives from this under-represented group, particularly in media. Through Women's Weather Watch we see that, in times of disaster in particular, and specifically as regards food security, women in the mobile network are able to share information about and support the realization of preparing for and providing support to one another through the mobile network during the extreme weather condition, this being very evident during the recent Tropical Cyclone Winston. Thus, we see that through these platforms, as well as spaces for mutual support described and capacity developed, the development paradigms of the rural Fijian women's groups are shared. As capacity is developed and given a national platform through the 'Radio with Pictures,' it is apparent that there are very specific and exact expressions of development goals, with direct conversations about the National Development Plan, specifically with regards to economic, health and governance goals. Looking at some of these development goals, we see that in the economic sphere these included supporting initiatives

through economic policies and training programs that sustain agricultural initiatives, as well as a road infrastructure that allows for the transportation of agricultural products, including to market. In the economic context, policy and governance issues were also described as part of development goals, described as providing political and economic support for economic initiatives, such as a chicken farm. Another issue that was consistently shared, the importance of land ownership rights by women and Indo-Fijians, and which often results in inequality in household decision making and use of family income. With health goals, local health services, access to adequate medicinal dispensaries, and access to clean water were stressed. These also featured in the third sustainable development goal: 'Good health and well-being.' Finally, through 'Radio with Pictures' and its examination of the development goals described and outlined, it is clear that the two primary development goals outlined in this context are the twin goals of equal participation in household decision making, and the re-emphasis on the already-existing national development goal of 30% representation of women in current governance structures at all levels.

Participatory communications for social change

Three main characteristics of participatory communications and social change were highlighted and can be considered in light of the results described. The first is where people serve as their own examples in their struggle for improved life chances, the use of dialogical approaches and ways in which the community itself reflects and acts to overcome these challenges. Looking at the way in which people serve as their own examples, many features of femLINKpacific and its network and platforms are cases in point. As a women's-based initiative, with the founder of femLINKpacific, the staff and the Conveners of femLINKpacific all women, this serves not only as a platform in which the underlying values of the female founder and staff

drive the purpose and content of the activities of femLINKpacific, but also allows them to serve as role models and active examples for the women leaders and women that listen to and participate in the content production, consultations and programs of femLINKpacific.

Furthermore, participatory communications for social change defines the use of dialogical approaches in the application of communications tools. The following examples highlight the dialogical nature of the platforms. Firstly, we see that the way in which the various platforms transmit the issues that are of concern to the rural women group members and women leaders through the various platforms including publications, and through interaction with the policy makers and those in government at all levels, contributes to a process in which dialogue takes place to address those issues that are of concern to women in rural areas. Secondly, and this is one of the limitations I would describe for the Women's Weather Watch in terms of the dialogical frame of reference, is that only those who are members of the women's groups and connected to the network of women's group receive the content of the communications through Women's Weather Watch. That is to say that the dialogue that exists through the platform is exclusive to those who are part of that specific network. Clearly this has the advantage of a certain degree of verified information being transmitted through the network and ensures traceability and identification of sources of information. As a result, this provides a certain degree of trust for those who are receiving and sending the information, as they know that those who are included in the network are connected as part of this specific community. This ensures trust-based dialogue, but alongside it comes the challenge that the dialogue is limited to those individuals who are a part of the network, and therefore excludes women and families who might benefit from the information that is transmitted through the network. In terms of dialogue, we also see that Women's Weather Watch has an inherently dialogical nature through the

transmission of weather and climate information from the women network members through the network in a distributed crowdsourced structure. This structure involves the Conveners as the points of contact in each of the districts with the women leaders, or leaders of each of the women's groups. Weather conditions are texted to the Conveners from around the District which are then texted to the Network Coordinator at femLINKpacific who then shares the information with the network. Alternatively, the Network Coordinator shares information over the network through distributed text messaging. This kind of information may include information from the National Disaster Management Office or other weather information.

Finally, within the context of participatory communications for social change, we see that the dynamic of how the community itself reflects and acts to overcome its challenges can be seen in many different aspects of the work of femLINKpacific. Specifically, there are two primary representations of this, with the connected purpose of food security and economic security. These dual concerns are represented in the transmission of content through all the platforms with regards to extreme weather preparation, with regard to indigenous food knowledge transmitted to support preparation for the extreme Tropical Cyclone, and with regard to the storage of water and food. The ways in which the various platforms and consultative spaces provide the mutual support described for food security and economic activity based on agricultural practices includes the many examples of sharing knowledge from matters such as planting techniques, to supporting the infrastructural development for transporting agricultural products to market by the women market sellers.

Inclusive Innovation in the Pacific

When looking at inclusive innovation with regards to the results of this research, each factor of inclusive innovation can be considered. Firstly, in matters concerning resource

assembly, deployment and development, although the various platforms that are utilized by femLINKpacific are socio-technologically based, there are limited specific technological innovations in the platforms. So, in this regards we could say that resource assembly, deployment and development come in the form of the way in which, on the one hand physical resources such as mobile devices, the mobile suitcase radio platform and the physical transmission and studio equipment for the radio station are deployed, and on the other hand with regards to human resources. This would most likely be largely connected with another aspect of inclusive innovation – social and organizational networks which femLINKpacific utilizes highly effectively. The whole structure of femLINK's information collection and dissemination through Women's Weather Watch and Mobile Suitcase Radio, as well as the capacity building processes employed by femLINK in its gatherings, are based around the social and organizational networks to which they are connected. When we look at the organizational structure of Women's Weather Watch and the gatherings, the structure is a network that includes femLINK connecting with women's groups around Fiji through the social connections of the femLINK Conveners and the women leaders who are the main points of contact with the women's groups. The innovation in this context is therefore the connection of these extensive social networks through the utilization of the technological tools such as the Mobile Suitcase Radio platform and other mobile devices for Women's Weather Watch.

Contemporary Discourses in Communication for International Development

Looking at the way in which femLINKpacific platforms and programs relate to the contemporary discourses described, and, looking in turn for political freedoms, we see the following examples that convey this.

First, the goal of femLINKpacific to encourage the participation of women in all levels of decision making. Second, closing the information gap and gender gap in mainstream media. Third, policy documents and publications shared with government. Fourth, women's groups sharing of community issues, developing capacity and feeling empowered to communicate with government at all levels and develop advisory councilor capacity. Fifth, voices of women shared through publications from Mobile Suitcase Radio interviews as well as through the interviews themselves. Finally, encouraging values of shared household decision making, including the goal of 30% representation of women in all levels of decision making, and inclusive gender and disability discrimination policies.

With regards economic freedoms, many examples were described, in particular the economic initiatives that were facilitated by the women's groups and then supported through the Convener gatherings and eventually shared through the various spaces and platforms. Examples of this are the discussions around the challenges faced in water and electricity provision for a bakery or co-operative, or the description by market vendors, of problems in bringing goods to market because of transportation and road issues. These points address some of the questions raised that require solving to meeting the economic needs of those that work with femLINKpacific. For the discourse of protective security, it is possible to examine the role of Women's Weather Watch as a way in which this security is facilitated in the context of protecting against extreme adverse weather conditions.

The broad topic of political, social and economic restructuring might be examined considering the other discourses already discussed, while the discourse of spiritual values and principles in the results can be described in three regards. Firstly, that the specific goal of gender equality is a fundamentally spiritually and values-based principle. Secondly, that some of the

women's groups dynamics described – for example, where the groups are inter-ethnic or inter-faith groups – again have a spiritual values-based foundation. Finally, and very directly spiritually based, all the women leader gatherings, focus groups and activities have a practice of saying an inter-faith prayer at the beginning of the meetings, which is also a common Pacific practice.

Pacific Women, Development and the Environment

Looking at special considerations regarding ICT tools for women, from the results we see that at a meta level the whole structure and purpose of femLINKpacific considers the addressing of the imbalance of women's voice in media, and so, includes this special consideration. From a specific process and activity perspective, it is evident, firstly, that the character used in “Herowins” creates a role model for women and girls and describe stories that are of relevance for women and girls. Secondly, when looking at the benefits of Women's Weather Watch, all the advantages outlined take into consideration the needs of rural Fijian women including cost, simplicity of language according to ability, ease of use in terms of technical skills required for the communications tools, and the accessibility of mobile devices, now largely available.

Clearly in highlighting Pacific women's voices, all the platforms seek to undertake this process. Firstly, through the Mobile Suitcase Radio platform, Women's Weather Watch, the monthly consultations and “Radio with pictures,” we see that the stories and issues of Pacific women are shared through this platform. However, are the true voices of the women truly being heard? Is their inner potential and true inner voice being realized, or is what we heard merely the expectation that has been enforced on them being expressed? Is it possible that the circumstances they face, the social processes that have been created and the issues that they share, are another form of oppression, in which the social circumstances, the discussions of access to basic

services, or the social environment, create a narrative that is not truly the expression of their full potential or human capacity? The social forces that exist in the global community, namely, post-colonial and colonial attitudes, or gendered social structures, creates a voice that may reflect their circumstances, but reifies the social conditions, which in themselves are not their true nature.

While it is true that hardships and struggles are being shared, and difficult circumstances being faced, it must be remembered that those hardships and struggles are only expressions of the inequality that exists, and those conditions are things that are enforced by circumstances, rather than choices. For example, when a seed is planted, given the necessary sustenance and nurture, that seed might become a great tree. However, when that nurture is denied, then the seed would rightly say “I’m a small seed, in the dark, in the soil,” whereas the true nature of that tree is to provide fruit and shelter and beauty, and that is the true nature of the seed. So, in this case, the denial of the sustenance and nurture, or in the women’s circumstances the lack of basic needs and services that are continually being expressed through these various platforms, possibly limits the expression of their poetic, musical, artistic and scientific talents. This brings us back to the original supposition, that through these platforms with the expression of the struggles that are being faced, the great trees of leadership are being created, and the women leaders of the femTALK network are, through their struggles, able to break free and realize their true expression and self, their ‘voice.’ What is ultimately heard are not the voices of deprivation, but the voices of achievement, in which the stories of the economic successes, the ways in which women’s groups have been able to address community issues and meet the needs of their families, are achievements and victories despite hardship – and a true expression of overcoming adversity. This is the ‘voice’ that is being realized, resulting in a position of true empowerment, with only the need for the right platform.

Pacific Media and Development

The media are the ideal platform for the women's voices. And, when we examine the colonial and outdated concepts of development considering the results of this study, we see that there are a number of factors that require consideration. Firstly, it is true that some of the funding and programs that are operated by femLINK are supported and funded by aid agencies, including AusAid, and as such involve a value-based agenda that attempts to implement solutions developed "elsewhere," which may be problematic. However, it is primarily a Fijian initiative, and the underlying values and assumptions of femLINK, are determined within a Fijian and Indo-Fijian context, and thus the development paradigm also is determined within that framework. Secondly this development agenda has been created using two processes, the national development agenda and from the needs and issues raised by the voices of the women leaders and women's groups themselves.

Another aspect of this discourse is the role of "aid." While this may be an important consideration, it was not a part of this study, and therefore there is no data being analyzed that determines the influence of aid. It was observed that there is collaboration with the Australian Aid Agency and various United Nations bodies, but this was not explored in any further depth.

In terms of "defining poverty," a very clear picture emerged, particularly in the way in which "peace" was defined, and so logically, an absence of those things that define "peace" could be seen as a description of the state of poverty. This includes not having enough food, being unable to walk the streets safely, the prevalence of domestic violence, the lack of positive portrayals of women, or the inclusion of women in the media, no forums to speak about community governance issues, such as water and electricity projects, and lack of positions in government. In addition, poverty is further defined as not having access to understandable,

timely and accurate weather information, or information and advice about dealing with adverse weather preparedness. By inference, and to define a condition of empowerment, it becomes clear that the capacity building process, and the mutual support systems that have been described, are vital in the development and maintenance of empowerment, and therefore a lack of these capacity building processes and mutual support networks is a further addition to the definition of poverty. In terms of further material conditions of poverty, the descriptions of this repeatedly mentioned the need for access to food, water, safe shelter and electricity during Tropical Cyclone Winston. In terms of the National Development Plan, specific goals are defined, which again, by inference to a lack of the successful meeting of those goals, adds to the definition of a state of poverty. Included are funds for agricultural projects, an increase in dispensaries and access to community health workers, access to clean water and specific support for the health concerns of LGBTQ women. In addition, the ability to initiate economic initiatives and participate in governance structures was also defined as a development goal during “Radio with Pictures” discussions, and therefore, lack of the fulfillment of this goal can again be seen as a condition of poverty. The challenges described in economic and agricultural initiatives are also ways in which poverty can be delineated, including low incomes, lack of goods, no electricity, racialized and gender-based land policies and drainage issues. One final area which adds to the definition of poverty in the analysis of the results is the fact that as the most effective groups seem to be those with an inter-ethnic and inter-racial membership, it can be inferred that poverty is exacerbated by the lack of such a membership with their varied experiences, backgrounds, values and structures.

Another area that relates to Pacific media and development, and which can be reflected on in light of the results, is the availability of local content. Clearly, this is one of the highlights

of femLINKpacific and femTALK, inasmuch as almost all of the content produced on femTALK is local content directly from the voices of the women in Fiji.

When considering prices, rates, literacy and digital literacy, this is most marked when looking at Women's Weather Watch. By examining the results which describe the benefits of Women's Weather Watch, there are two obvious clear advantages, the low cost of the mobile devices themselves, as well as the low cost of sending SMS messages, and secondly, when looking at literacy and digital literacy, the often-mentioned simplicity of language and ease of use.

Finally, in this context, we can see that the importance of the role of participatory media approaches is strongly delineated in the results where local knowledge is utilized. From the information provided on weather conditions locally in Women's Weather Watch, to the descriptions of local economic initiatives shared through Mobile Suitcase Radio and the women leader gatherings, it is apparent that the voices of local people are highlighted in the media and the non-mediated communication settings of femLINK, for example in the dissemination of local knowledge about food practices during TC Winston. This is further emphasized by the fact that the media platforms have purposefully refrained from reporting using only government sources, and focused instead on reports from the women leaders, women's groups and local women. One limitation of this approach, however, is that in the context of the women's gatherings, and 'Radio with Pictures,' the tendency is for the voices of the women leaders to be the most prominent, as opposed to the voices of the individual members of the groups.

My Reflections and meaning of the study

At the end of the discussion, it seems relevant to record and reflect the researcher's own observation and perceptions. This adds a dimension to the ethnographic study, where the

researcher's own experience is an integral part of the work, adding to its authenticity.

Considering the idea that the full capacity of men will be realized with the empowerment and realization of the equality women, I embarked on this period of research with the perspective that somehow, I would be assisting or serving the cause of the empowerment of women, especially women that come from a markedly different cultural and social environment than one to which I was accustomed. I also went in with the idea that I would like to engage in a process of learning that would come from engaging with this community and through that process come away with having been of service to a community, and through a mutually supportive process, also learn from, as well as enhance my own capacities. I have fully come to appreciate that the processes of learning, which is indeed a mutually supportive co-learning process, cannot be simplified to one single activity or path, but however is a combined, and cumulative process that engages in capacity building through multiple venues, that are coherent in the development of that capacity. Similarly, the learning process is not a one-way path – where one is either providing or receiving knowledge – but instead it is a co-operative, non-competitive process of enhancing one another's capacity, which adds to the collective store of knowledge. Thus, with the various platforms that are offered by femLINKpacific, we see that “voice” is developed where there is true collaboration, especially with a diversity of voices that are brought to the table. Furthermore, whilst it might seem counter-intuitive, the same dynamics that seemingly are a cause of trial, whether that be economic hardship, or an extreme weather condition, are the cause for constructive resilience and empowerment, by being able to address and constructively work together to develop skills, knowledge and tools that will address the challenge or ‘test’ being faced. Indeed, ultimately, I feel that I have come away from this experience having learnt much more than I feel I contributed to the group that was the subject of my study.

Whether or not, the platforms truly result in a change of access of the women to formal governance structures in the end isn't the key measure. Through the efforts that are made, the capacity of the women leaders and radio station staff members has developed, skills have been acquired, and relationships forged. And something that I have learnt from this process is that, the women leaders and radio station staff members that I was fortunate to meet and interview, and "talk story" with – were in fact taking charge of their own social and economic destinies, regardless of the traditional structures that exist in Fiji.

With that personal reflection, from my perspective, the main meaning of this study, from a philosophical perspective, can be characterized by the story of the Zen master and the student. In this story, the student goes to the Zen master for training, and is sent by the Zen master to push a rock up a hill. After much effort, the student is unable to move the rock, so returns the next day, whence the Zen master sends the student again to push the rock up the hill. Again, the student is met with the inability to move the rock. This pattern continues for much time, with the Zen master sending the student to push the rock up the hill, and unable to do so, until the student says to the Zen master that for much time she/he has been unable to move the rock. The Zen master, in response, finally turns to the student, and says – that yes, she/he has been unable to move the rock but look at her/him-self and the muscles that she/he has developed. I believe and hope the efforts of the women leaders and staff at femLINKpacific, over time, with incremental small steps, are able to enhance women's participation in governance structures and address media inequality. However, for me that is not the important measure. The important measure is the process and capacity development that is taking place, with the coherent processes in multiple spaces, and the skills and relationships that are being forged by the women leaders and staff members through these processes. That is the key meaning of this study, through the

experience of TC Winston, that resiliency is that key characteristic of a constructive response to an external condition, to which the community responds creatively and with hope, and forges new processes of integrating institutions and patterns of community activity to address the challenges faced, collectively, however arduous that may seem at times.

7 CONCLUSION

Summary

The theoretical framework of this dissertation is based on the ideas of inclusive innovation, or ICT tools developed by and for those living in poverty, post-development theory, or alternative development paradigms, and participatory communications for social change, particularly highlighting indigenous “voice”. This is a paradigm which understands the use and advancement of communications tools for development and takes into consideration the current discourses regarding how information and communication technology for development purposes, known as ICTD, emerged. In the creation of the conceptual framework, various elements were considered, including contemporary discourses in international development; for example, definitions of freedoms as related to development measures, the role of communications technology in development, local participatory mechanisms, and processes for sustainable ICT projects as part of development. Furthermore, climate change resiliency factors were considered, as well as factors linking Pacific women, development and the environment, including an examination of the tools which address the specific needs of women, statistical indicators of the gender digital divide, gender and peace, definitions of poverty (with additional considerations for human rights) and the fair representation of women’s voices.

Within this theoretical and conceptual framework, and with considerations for carrying out research specifically within a Pacific regional context (rather than “elsewhere”), as well as with considerations for communications platforms widely available in the Pacific, the primary research question for this study was first defined as:

How do women in rural and agricultural communities in Fiji utilize mobile devices to interact with community radio? What effect, if any, does such usage have on their realization of praxis, voice and generation of knowledge as an alternative development paradigm?

A community media organization and radio station in Fiji, femLINKpacific/femTALK was then identified in order to carry out a case study using ethnographic and qualitative methods and a pilot was carried out to explore the gendered mobile device and radio interaction. The pilot, using information gleaned from interviews with the radio station staff, did show an interaction in the form of Women's Weather Watch and Mobile Suitcase Radio, and an organizational and network structure which supported women's group collaboration for voice, and generation of knowledge.

Following Tropical Cyclone Winston, which hit Fiji on 20 February 2016, a secondary research question was developed as:

How did and are women in rural Fiji utilizing mobile devices to interact with community radio in response to Cyclone Winston? What effect, if any, did and does such usage have on mitigating the effects of Cyclone Winston, and resilience factors?

Utilizing a three-phase methodology, with qualitative methods, extended interviews were carried out with the radio station staff and the "Conveners" in December 2016, followed by focus groups, or "Talanoa" with the women leaders' groups in three regions of Viti Levu and Vanua Levu.

The results and analysis from the research carried out raised a number of key factors. First, understanding the mission, history and purpose of femLINKpacific, as well as some of the features, impacts and challenges faced by the platform. These included the role of femLINKpacific in highlighting women's stories, closing the information and gender gap,

producing policy documents and carrying out interview and events shows. Second, describing Mobile Suitcase Radio, including its background, history, features and advantages, such as capacity building to express voice, production of a community radio times that further expressed voice from the Mobile Suitcase Radio platform, as well as raising awareness was also helpful in more understanding of the issues. Third, there was an understanding of Women's Weather Watch. This included findings that outlined the use of SMS text messages about weather conditions and preparedness, mutual support during times of extreme weather conditions and description of the benefits of Women's Weather Watch, including documentation of usage of Women's Weather Watch during Tropical Cyclone Winston. These advantages included low cost, range, simplicity of language, ease of use, and access. Challenges included access to power. Processes identified also included descriptions of networks of women leaders as part of the Women's Weather Watch system and a description of the provision and dissemination of information.

This description of Women's Weather Watch also included the Facebook stream from 19th February to 29th February 2016 and the information that was shared during the Tropical Cyclone occurrence.

In exploring women's groups themselves, the main characteristics of the findings included the variety of the activities of the groups, ranging from fundraisers to mother's groups, and their wide range of purpose, from alleviating poverty to discussing specific issues, to the formation of single topic-based groups, such as health. Some of the impacts included increased capacity for expression in English, as well as the ability to address local challenges, such as flooding or street lighting issues.

Looking at “Radio with Pictures,” a content analysis of the videos of this program was carried out and categorized according to emergent themes, to further describe and exemplify the incremental capacity building steps for expression of community issues. These themes were mainly based on discussions of the Fiji National Development Plan, as that was under consultation by femLINKpacific at that time and immediately after TC Winston. The first edition of the National Development Plan included economic factors and included a summary of the many economic initiatives described, as well as some of the challenges faced by the initiatives. The National Development Plan Health discussion considered access to adequate medications among other concerns, and the five-year goals of the plan. In the Governance discussion, the main features were work needed to achieve the 30% women’s participation in governance structures at all levels, the publication of the ‘Herowins’ comic as well, as building relationships with the National Disaster Management Office. Finally, in “Radio with Pictures,” the panelists oftentimes described economic and agricultural initiatives outside the scope of the National Development Plan. Specific examples included chicken farms and challenges of chickens pecking each, sugarcane farming and the challenges of racialized land policies.

Several features of the use of mobile devices alongside community radio, by rural Fijian women leaders were noted, and included in the discussion section of this dissertation. The discussion also included a reflection on the analysis carried out in the context of the theoretical and conceptual frameworks initially proposed, and the research questions. Firstly, highlighting the ability to promote mutual support both in the context of affirmative spaces for collaboration, as well as through a network of SMS and social media communication during an extreme weather condition event. Secondly the emphasis on promotion of voice, similarly through leadership and capacity development in monthly gatherings, as well as in engaged learning, acclimatization, and

informal leadership expression through the combined forces of Mobile Suitcase Radio, “Radio with Pictures” and monthly gatherings. Additionally, inter-ethnic, inter-religious, and heterogenous women’s groups further enhanced the processes of decision making and collaborative economic endeavors.

One of the primary lessons learned through this process, it could be argued, was not so much the insights into the research questions, but the lessons learned from the research method utilized, and the way in which, the application or expectation of the use of a focus group, naturally transformed into an application of the use of “Talanoa,” by the women leaders themselves. This may lead to a future research paper that describes the experience of engaging in a “Talanoa” process and the key characteristics of the use of an indigenous research method, and application in other similar settings. Already, universities in the US mainland have become interested in innovation in research methods and insights gleaned in the application of indigenous research methods and asked to find out about the lessons learned from this research.

Contribution

The primary contributions of this study are fourfold. First, this study documents the way in which mobile devices are being utilized by women in rural Fiji to interact with community radio. Second, this research also documents the way in which various media platforms, from YouTube, to mobile platforms for radio and a mobile device-based weather communication platform used by a network of women in rural Fiji, were used during Tropical Cyclone Winston. Third, this research conceptualizes three main processes that enhance capacity and promote empowerment amongst rural women in Fiji – namely, the role of inter-ethnic groups in addressing community concerns, the processes of acclimatization that develop capacity to address community issues, and the role

of mutual support to promote “voice” amongst rural women. Finally, and the fourth contribution, is that this study will be shared with femLINKpacific, who can utilize the findings in support of their objectives including, increasing the participation of women in governance structures in Fiji, as well as resiliency to extreme weather conditions.

The primary gap in literature addressed is the dearth of statistical as well as a range of data on how women in materially limited conditions utilize accessible communications technology through innovative practices, for addressing social and economic needs. This gap in the literature exists across many regions, and the focus of this dissertation is to fill this gap on knowledge being generated through the utilization of communication tools in the Pacific region, and in particular Fiji. This dissertation furthermore, documents, again filling a similar gap in literature how, women are utilizing available communications technology as protagonists of social change, in particular for enhancing participation in governance and climate change resiliency, in Fiji.

Limitations

As with most qualitative research, there are limitations on generalizability, as this is a specific study of “a specific phenomenon, in a focused locality, in a particular context” (Leung, 2015).

Two primary limitations, or alternative communication dynamics, may also be considered from the findings – that of capacity development unrelated to the technological tools, and development of leadership capacity outside the scope of the facilitation by the community radio station. With the first consideration, it is possible to see that while the expression of community issues and sharing of stories about economic collaboration and initiatives are disseminated through the Mobile Suitcase Radio and ‘Radio with Pictures’ settings, the primary space in

which these initiatives are conceptualized are in the context of the women's groups themselves – a non-mediated communication venue. For example, an inter-ethnic group that conceptualizes a community farm realizes this within the group itself, and then the community media platform creates a space to enable the group to describe this experience and share it with a broad media audience. Similarly, the processes of enhancing leadership collaboration with the monthly women's gatherings is also partly carried out in the monthly women's gatherings themselves, albeit later communicated through the media platforms. This is not to say that the media platforms do not contribute to the capacities of voice and mutual support, however, there is a comprehensive framework which includes the media platforms, as well as the consultative and participatory spaces.

Therefore, while many of the primary characteristics of empowerment processes can be identified within the mobile phone-community radio shared processes, others can be attributed to consultative and reflective spaces, in the women's groups and the monthly women's gatherings, that while complementary, are non-mediated communication spaces, independent of the use of technological tools.

Future Research

Future areas of research could be fivefold. First, it would be possible to extend the instruments developed in this project, with further interviews and focus groups (including 'Talanoa' or similar indigenous methods), which could be utilized to continue the exploration of the use of community radio and mobile platforms, and other mobile platforms partnered with community radio stations, either throughout the Pacific or in other regions, could be identified and examined. Second, additional 'Talanoa' focus groups could be carried out in Fiji, in order to

meet with the women's groups themselves, rather than women leaders, to determine the positive and negative characteristics and processes inherent in the use of the various mobile platforms, as well as gaining information about the members' experiences in their women's groups. Third, inter-ethnic, mutual support, voice and capacity building processes used by community radio stations could be researched by enhancing the instruments developed in this project and working with other community radio stations, such as "Voice Blong Mere," "Children's Radio Foundation" or "Farm Radio International." Fourthly, a detailed content analysis of the policy documents of femLINKpacific could be carried out.

Finally, as Lin et. al (2015) described, looking critically at ICTD projects can reveal characteristics that shed light on some of the unintended negative consequences of the introduction of ICTs in the development paradigm and the marginalization of communities. Future research might adopt some of the methods employed by Lin et. al. to carry out qualitative research that seeks to understand, outside of the organizational structure of femLINKpacific, in our case, unintended outcomes from the use of the community radio and mobile platforms that do not enhance voice and "praxis," as well as applying this critical approach in other similar settings, with other similar ICTD programs and projects.

Appendix A – Pilot

A pilot, utilizing interviews, was carried out initially with a field visit in March 2015, with employees and volunteers at femTALK .

Interviews were carried out with six staff members including DJs and research and administrative staff. The staff members were identified by my main research officer contact at femTALK, who focused on those staff members who were most familiar with the work of the station and would be able to discuss, in greater depth, the questions that were part of my interview. Furthermore, staff members from a diverse array of functions were identified, considering their availability to participate.

The first two questions, in the interviews, address general background, including perceptions of station demographics, followed by a third question, which specifically asks whether participants know of, or had seen, use of mobile technology by femTALK. This question can be answered with a “yes” or “no.” In a “yes” case scenario, the interview continues with the questions below, but in a “no” case scenario, alternative questions are also provided to ask, (but not needed for this study). Questions 4-6 relate to experiences of how the staff member may have seen audience members interact with the radio station using mobile devices, including processes and difficulties of women’s interaction with the radio station, as well as a question on exploring other ways in which women might interact with the radio station using mobile devices. Questions 7- 9 explore the impact of the use of mobile devices to interact with the radio station as regards participation in community decision making, agricultural development, and educational outcomes. Questions 10 and 11 explore other positive outcomes, as well as other mobile technologies created and used in women’s interaction with the radio station. The penultimate question asks the way in which staff may feel that these other mobile technologies

impact community decision making processes, educational outcomes, and agricultural development. The last question in this section looks to the future and queries the way in which mobile devices might be utilized by the radio station, and how staff might like to see audience members use mobile devices to interact with the radio station.

During the interviews, the responses to the questions involved, in most cases, led to more in-depth open-ended discussion and conversation. In the same way, depending on answers, questions were sometimes combined or skipped, when necessary, thus allowing for more free-flow, explorative conversations.

Interviews were transcribed for analysis. The coding scheme was based on the themes that emerge from the responses. The coding scheme used included focused axial coding, where categories and sub-categories were created based on themes that emerged from the interview responses.

Pilot Results and Discussion

The interviewees in the pilot included two research officers, a community media officer, an on-air personality (DJ), a front-desk staff member and a volunteer, who for the purposes of this pilot analysis we will designate as Participants 1 to 6.

To ensure confidentiality, statements are not directly linked to a particular individual. When asked about defining the listener demographic, a number of responses were presented, the most repeated of which stated that listeners were women in villages in and around Suva and on the island of Vanua Levu in Labasa, where femLINKpacific has its transmitters. Responses also mentioned the specific transmitter ranges of Suva, with a 25-mile radius, and Labasa, with a 10km radius. As well as the female audience, responses described other audiences, including policy makers and some men.

In describing the way in which women utilize mobile devices to interact with the radio station, a number of sub-categories were identified. The main devices or systems mentioned were the Women's Weather Watch, smartphones, and Mobile Suitcase Radio. Women's Weather Watch is a system where selected women Conveners, identified in five rural centers, share information on weather conditions, such as cyclones, droughts, etc., often using text messaging. Participant 1 describes how, in 2012, it was realized that mainstream media announced weather news:

like this area is experiencing this much rain in mm, or winds gusting up to so many km per hour, an average person wouldn't understand so the idea was to put the news into a more capsule form for those listening in... I think in the early stages of femLINKpacific they would actually go out post-disaster times in the west and they would interview the women, asking them about their experiences, and the women would talk about simple stuff like not having enough sanitary pads, access to dry clothing, so I guess that all triggered the project, and ever since then it's been an ongoing thing.

Thus, the women Conveners, via text message and calls, as well as through women's groups in the various centers and the monthly consultations held with the Conveners in Suva, shared information on weather conditions for disaster risk management, further shared through radio broadcasts, as well as via social media. Participant 4 describes how for Women's Weather Watch "mobile phones are crucial for getting in contact with members of our network." An example quoted was the way in which the women Conveners sent text messages to femLINKpacific staff's mobile phones regarding Cyclone Pam in 2015. These broadcasts were also described as being aimed at influential policy makers, for the purposes of information, and

became a complementary strategy in attempts to promote more women onto the government disaster management committee.

Supplementing this process, the women Conveners were further discussed, with regards the way in which meetings are held every third Wednesday of the month, where Conveners come together in Suva to share stories. These monthly stories are also sent in via text, as well by digital and cassette recorders. This ultimately results in stories by women from the different areas arriving either as audio cassettes or by emailed digital files at the station, which then uses them in broadcasts.

Smartphones were also mentioned for their usage either to listen to the station, as an alternative to the more common transistor radios, or to access the station's social media accounts, but this had obvious limitations with regards the affordability of data/4G access.

Finally, Mobile Suitcase Radio (portable broadcast units) was often mentioned and is one of the primary focuses of the station, as well as a primary use of a broadly defined mobile device platform. In particular, Participant 3 (when asked in a later question about other mobile devices), "We go out into the field and we basically broadcast and we have a 10km radius with that Mobile Suitcase Radio, so I guess we try and tell stories, and it's just a narrative way." Similarly, Participant 2 describes "my experience working at femLINKpacific in the field, since it is a Mobile Suitcase Radio station, we normally go out into the different communities to hear their voices, we go out to record their voices to hear their story and it's an experience for them to hear their voices going out live." Participant 5 also described taking suitcase radio into the rural areas and creating a space for women leaders to raise their issues.

Returning to the primary research question, it can thus be seen that the issue of “voice” is something directly attributed to the role of Mobile Suitcase Radio because those who are in the large part excluded in many ways from mainstream discourses are provided an opportunity to broadcast their lives, their concerns and their viewpoints. This not only results in the empowerment and confidence provided by having their voices heard, but also impacts policy, as was seen where an example involving issues of provision of electricity and clean water to the villages was highlighted (see later results). In addition, the “women’s gatherings” also provided innovative spaces for reflection, as also defined in participatory communications for social change. In considering an alternative paradigm of development, it can be seen that through the processes of Mobile Suitcase Radio, “women Conveners” and “women’s gatherings,” local culture and knowledge is promoted and shared by rural women utilizing consultative processes in a collaborative, empowered approach. As regards inclusive innovation, it is clear that the methods described, such as sharing local stories through Mobile Suitcase Radio as well as Women’s Weather Watch, are truly local innovations that meet local needs, rather than solutions developed “elsewhere.”

In Connell’s (2007) analysis of a specific feature of the *Fiji Times*, namely that of a section in the paper entitled “The People,” which takes the form of biographies of individuals in Fiji who have been noted as having made some form of accomplishment, Connell writes “These model lives, constructed in part by the readers themselves, become discourses for others to comprehend, validate, and even replicate in their own lives.” Connell identifies and defines certain values in the stories that are told, including “the entrepreneur as hero,” “overcoming adversity,” “hard work, discipline and practice,” “education, sport and health,” “initiative”, “self-

belief,” “cooperation,” “religious values,” “transforming tradition” and “ethics and service,” including examples from “The People” that highlight each of these values.

In Bolton’s (1999) paper, radio is discussed firstly, from the historical perspective of the development of the medium in Vanuatu including the establishment of its Broadcasting Service with Radio Vila while under colonial administration, as well as some of the ways in which local songs and stories were collected and broadcast with the inception of Taem Nao, Taem Bio (The Present, The Past) program in 1971. The role of radio in Vanuatu and for Ni-Vanuatu is discussed stating that, “radio brought them information and ideas to which they did not otherwise have access.” Furthermore, the role of “walkabout cassettes” is discussed, where local songs and stories were collected through sending “a tape recorder and tapes to the islands, on request, for people to record stories for broadcast.” Up to this time, “*Kastom*”, or the traditional culture, was discouraged and had a negative connotation, with the colonial emphasis on Christianization and development. However, through radio, and particularly Bislama radio, not only did *Kastom* become “a nationally recognized phenomenon but the idea of a nation of Vanuatu with a capital at Port Vila, became apparent in national consciousness, culminating in the National Arts Festival in 1979 and subsequent independence from colonial rule.

Firstly, in both papers the role of the media in constructing values systems for Fiji and Vanuatu are highlighted, particularly its role in developing a sense of nationhood. Connell notes that “Fiji thus faces considerable tasks in creating an economic structure both sustainable and supportive of the bulk of the population, and in developing institutional structures that enable all groups to play an effective part within the nation” ... “the news media plays an important role in the discursive construction of such images”. Similarly, Bolton notes that “radio has made a profound contribution to the construction of the nation of Vanuatu. A crucial element of that

constitution is the way in which, through the presentation and exploration of local knowledge and practice as *kastom*, radio has linked indigenous projects to the national ideal.” Thus, we see the primary theme in both papers is how, through the analysis of model lives and examples in the “The People” in the *Fiji Times*, and the role of sharing indigenous culture and practices of *kastom* in Vanuatu, national identity, common ideals and practices are formulated.

Secondly, both Bolton’s and Connell’s papers identify the importance of the lives and practices of everyday people and the way those experiences are used, as already mentioned, to develop institutional and cultural notions of nationhood, and also to enfranchise the citizenry. For example, Bolton notes that “rural people feel disenfranchised by radio programming that does not attend to their own knowledge and practice, and to the *kastom* that they have learned to recognize as the basis of their identity.” Similarly, Connell notes that “the national newspaper plays a role in shaping notions of a successful and inclusive nation. In a country where politicians and even religious leaders infrequently champion an inclusive society, journalism has taken on that role.”

Akin to Bolton’s study, another interesting feature is the audience created content. The role of Mobile Suitcase Radio in which audience members, mainly in villages, are interviewed through a mobile radio platform, and are subsequently broadcast over the main radio station, reaching a broad audience, in femTALK’s case in and around Suva, Fiji, is much like the “walkabout cassettes.”

Similarly, the discussion in Connell’s analysis of “The People” again finds itself not far removed from the way in which Mobile Suitcase Radio is used to interview everyday people in order to share their concerns and thoughts and talk about their daily lives, much in the same way that “The People” highlights social role models. As Connell notes, “*The Fiji Times* continually

fosters a national consciousness through the accounts of lives and activities so easily understood that the process of gradual acculturation to shared values is barely registered, so managing the implicit creation of consensus in a ritual of repetition and routine.” This possibly presents an approach that offers an alternative development paradigm.

Furthermore, we can see, from both these parallel examples, that a gender identity through media, can be something that may be discerned through the role of “Mobile Suitcase Radio” and similar participatory approaches, whereby shared concerns and values are promoted and supported through the understanding that there are others with the same concerns and challenges, as well as values, and that this platform gives value to that identity.

In terms of the question regarding difficulties experienced by women in using mobile devices, a number of sub-categories were defined here, including “network and power outages,” purchasing credit, willingness to use technology, and SMS literacy issues.

Participants 1, 4 and 6 noted issues related to network outages, particularly in the west of the main island, including not being able to access the internet, and recounted stories, in some cases, of women climbing hills to gain better network signal. Participant 1 also noted that access to purchasing credit was an issue, describing an “inability to top up the phone.” Social consideration of technology issues was also highlighted by a number of participants, including female audience members being “scared of the technology at first”, for example, when using Mobile Suitcase Radio, with Participant 6 noting some of the women were “not willing to share stories” at first. However, Participant 2 noted that “so someone coming with the technology to ask them about the issues, that was one of the difficulties that we initially faced, but as we continued to utilize the technology, they became more aware of how to use it.” In a similar vein, in overcoming credit purchasing limitations, Participant 3 commented that “So we try and make

use of the free services provided by the mobile companies - such as callback messages, where you send a code and that sends a message to simply call back on this number. The other one is where they call me back and I pay for it - reverse call charges” ... “Reverse call charges are charged at the same rate as if they had credit on their phone.” However, Participant 3, when describing Women’s Weather Watch, did elucidate that a lot of the Conveners are young women, and already comfortable with technology, especially at ease with texting, describing texts received recently of “it rained all last night” or “it’s starting to get windy.”

In looking at the question exploring how interactions with mobile devices have enhanced women’s participation in community decision making processes, a number of examples were highlighted. Firstly, Participant 1, noted that

In one example, in 2013 we went to Nadi, a certain settlement in Malamalama, they don’t have access to water so their story was documented over our Mobile Suitcase Radio and we came to Suva and broadcast it and at the same time we communicated their concerns over the communities ability to access clean drinking water even though they are just outside, not too far, from Nadi town, and that was picked up by mainstream media, communicated to the Ministry of Information and then broadcast through mainstream media here in Fiji and then responded to by the relevant authorities to provide clean drinking water. Then there’s another community up in Vanua Levu, on another island, and their problem was electricity and that was an ongoing thing, but right now the relevant authorities have come in and they are now up and running with electricity, even though it’s limited, because women sent the message that they wanted to start a business, but it needed electricity and that was the story. How can women secure their economic security without these basic necessities?

Participant 4 also restated this example. Participant 2 also described how “in terms of self-confidence, in traditional settings, in rural settings, women’s place is just in the kitchen, but use of technology gives them self-confidence so they don’t only talk about issues in their community, but they go back to their communities and their groups, and help women raise their voices about women’s issues in their community.” Participant 3 noted that “using their phone to get on the femLINKpacific page, allows them to gain more access to information, so that they can go to other organizations and networks in their own community and use whatever they have learned or information that they have gotten from us to try and influence those decision-making spaces”. Participant 4, also noted how “women feel more empowered through attending workshops in their areas, and that in turn has enabled them to voice up and speak out in village level meetings and also going to district offices, for example, and speaking at the local government level.” Finally, Participant 6 stated that “in Fiji women are looked down upon and not involved in decision making processes, so through this they are able to speak out about their issues and know that it’s aired live and broadcast and that people get to hear about it and people made aware about it.”... “also, when government officials, when we have trainings and consultations that involve them - some things actually come out of what we are doing and makes them more appreciative of being involved.”

In this set of questions, the line of questioning often combined a discussion of a combination of community decision making processes, agricultural development and educational outcomes, as well as other outcomes, and so there was more emphasis on some parts rather than others with this approach, and in keeping with the natural flow of the conversation.

With regards how there has been enhanced agricultural development, Participant 1 commented that there are certain programs based on women market vendors, as well as issues related to land

ownership, which was described as a very sensitive issue. Participant 2 also described how through the women's gatherings they "come together and talk about the issues they face and what help they can get" ... "Also in terms of agriculture some of the different communities, they have seedlings but don't actually have the space to actually plant so when they come to the consultation they learn from other women, they can use pots or other things, where you can hang plants and grow your chilies, in that way having that consultative process they can combat issues rather than having an agency come and help them."

Regarding educational outcomes, Participant 1 stated the ways in which women, in particular young women, through consultations have been able to influence government policy regarding allocations of scholarships. Participant 2 described how "some of the communities get together and work together with some of the skills they have in handicrafts and try and reorganize themselves in their women's organization and women's groups in their communities, and not only gain skills from other women but also give skills to have an income." Participant 3 further describes how a main role of femTALK is the provision of access to information and giving information at the right time, in the context of educational empowerment. Besides mobile devices and radio, other media were also described in answers. Participant 1 described their use of social media, including short videos over social media, as well as DVDs, policy book publications, brochures, an online e-magazine and a TV simulcast.

Finally, when asked about a future ideal situation with the use of mobile devices, sustainability, boosted signals by mobile service providers, as well as more interaction from the women, particularly as regards how stories have impacted them, were mentioned. Participant 4 describes, "a few weeks ago a woman was listening to the show and this program came on and called in to the community media center and said, 'I was listening to your show and this program

came on and it got me thinking about how it affected my life.” Finally, Participant 6 commented on the hope that there is more to come in terms of the pool of women and being able to influence those who are doubtful to share their stories and having more women of diverse backgrounds willing to speak with them.

Pilot Summary

This pilot addressed the question of how women in rural communities in Fiji utilize mobile devices to interact with community radio, to determine the effect of such usage on their realization of “praxis,” “voice” and generation of knowledge as an alternative development paradigm. It did so by carrying out interviews with the staff at a women’s run radio station in Suva, Fiji. In doing so, it found the uses of mobile devices with community radio include Mobile Suitcase Radio and Women’s Weather Watch, which allow for sharing of issues between women in rural Fiji, as well as an example of context specific innovation, and voicing of aspiration for localized paths of development. Parallels are drawn with “walkabout cassettes” and use of media for personalized, individual stories in other Fijian media. Processes described include monthly women’s gatherings and use of mobiles for callback texts and reverse charges, similarly reflecting innovation and participatory, inclusive, community-driven and inspired approaches to community development. Difficulties using mobile devices include difficulties purchasing credit and power outages, while community issues -- such as access to clean water and electricity – became apparent. Furthermore, agricultural practices, as well as information about scholarships and agricultural skills and practices, have been shared through women’s gatherings.

A concern with the pilot is that there may be a tendency to identify an artifact to fulfil a certain politic. That is to say, further critical analysis would be helpful in determining that the case study identified is not just a convenient fit for the theoretical framework presented, as well as

considering and embedding further indigenous and post-colonial paradigms, as part of the conceptual assumptions, as well as other critical approaches to the implementation and adoption of mobile devices and radio.

This pilot, as an initial investigation, does show that this is an area worthy of further investigation.

From this pilot inclusion of an investigation of the historical use of mobile technology, including cassette recordings for broadcast via radio in other Pacific contexts, as well as a comparative study of how radio stations and programs similar to femTALK, also in different Pacific contexts, utilize mobile technology, was identified, and has been integrated into this dissertation. In addition, the research avenues considering socio-political and cultural factors related to issues discussed in the context of communications technology, with a more philosophical approach to the underlying assumptions of pilot, including concepts of “national identity” and gender, as well as values, interests and motives that form the foundation and application of communications technologies applied in a Pacific context, were also realized and have also been integrated into this dissertation.

Pilot Limitations

Limitations to the pilot included, firstly, a realization, on reflecting on the interview questions, as well as the tendency of the interviews themselves, towards a positive bias in the questions and structure of the interview, which sought to find a positive relationship on empowerment processes through the utilization of community radio and mobile devices. No space is created for reflection on negative outcomes of the technological trends or negative impacts, as well as more unbiased reflection on the outcomes of device trends.

Secondly, many of the processes and outcomes described, while valuable perspectives, often times are in fact outcomes related to processes such as “monthly gatherings” which are not necessarily related to mobile devices. This also relates to another feature of the results of the interviews: that many of the questions asked relate to a very broad range of mobile devices, such as suitcase radio, recording devices, etc., not just mobile phones, and so, while not necessarily a drawback or weakness of the study, do define a much broader feature of mobile devices and associated activities related to interactions by rural women and the radio station, rather than specifically mobile phones.

Thirdly, the interviews carried out for the pilot only present the perspective from the viewpoint of the staff at femTALK, and not those of the rural female audience themselves. As originally intended, the extension of the pilot needs to consider further qualitative research, including interviews, with female audiences of the radio stations and mobile device users. Finally, I became acutely aware of the possibility that research of this kind, could be utilized by corporate interests to promote greater mobile adoption, without due regard for some of the negative social effects that can be seen – such as the way in which, through aggressive marketing from mobile service providers, a large percentage of disposable income is being spent on mobile services, replacing kava in that regards. There are also other detrimental effects that need to be considered, but this study, with the knowledge that high mobile phone adoption is a fact, looks at how this trend is being used for socially beneficial purposes.

Appendix B - Pilot Interview Questions

Toward a Praxis of Gender Empowerment: Community Radio and Mobile Phones in Rural Fiji

Ashiyani Rahmani-Shirazi

Interview questions:

For community radio station (femTALK)-

- 1) How long have you worked for femTALK?
- 2) What is the main demographic of the radio station?
- 3) Have you experienced women in rural communities interacting with FemLINKpacific using mobile devices? (If 'no' – go to question A, otherwise continue to question 4)
- 4) In your experience what is the process of interacting with FemTALK using mobile devices?
- 5) Have you experienced any difficulties in women interacting with FemTALK using mobile devices?
- 6) Is there a potential for women to interact with FemTALK using mobile devices in more varied ways?
- 7) Do you feel women's use of interacting with the radio station using mobile devices has enhanced involvement in community decision making – please give examples.
- 8) Have you seen any example in which such interaction has enhanced agricultural development or educational outcomes?
- 9) Have you seen ways in which mobile interactions with the radio station have influenced local government policy.
- 10) What are some other positive outcomes that you have seen in terms of women's interactions with FemTALK using mobile devices?

11) In terms of the positive outcomes of questions 7-9 how have other, non-mobile device related tools – such as mobile community radio platforms been utilized?

12) In an ideal situation, in what way would you like to see women interacting with FemTALK using mobile devices, in the future?

(Respond: 'No' questions)

A) How might women use mobile devices more to interact with FemTALK?

B) Why do you think women haven't used mobile devices to interact with FemTALK?

C) Do you see opportunities to enhance the interaction between the audience and FemTALK using mobile devices?

D) In an ideal situation, in what way would you like to see women interacting with FemTALK using mobile devices in the future?

For community radio station audience members-

1)Where are you from?

2)How have you communicated with FemTALK using mobile devices?

3) Has it been easy for you or have you encountered any difficulties interacting with FemTALK using a mobile device?

4) Do you think using your mobile device to interact with FemTALK has had any impact on educational outcomes in your community?

5) Do you think interacting with FemTALK using your mobile devices has influenced local government?

6) Imagine that you had no restrictions on mobile devices, how would you like to be able to interact with FemTALK in order to benefit your community?

Appendix C – Phase 1: additional semi-structured interview questions for femTALK staff members

- 1) Please describe how using mobile devices to communicate with femTALK, including Mobile Suitcase Radio, has affected health outcomes?
- 2) How did you see mobile devices being used to communicate with femTALK before, during and after Cyclone Winston?
- 3) In what way did communicating with femTALK with a mobile device, help or create difficulties, during and after Cyclone Winston?
- 4) Please describe how Mobile Suitcase Radio and Women's Weather Watch were used before, during and after Cyclone Winston?
- 5) In your opinion, what would be the something helpful for the community, by using a mobile device to communicate with femTALK?

Appendix D – Convener interview and women leader focus group semi-structured questions

- 1) Where are you from?
- 2) How have you used, mobile devices, including Women's Weather Watch, Mobile Suitcase Radio or other mobile devices to communicate with femTALK?
- 3) Have you encountered any difficulties using mobile devices to communicate with FemTALK?
- 4) How, if at all, have communicating with femTALK using mobile devices helped or created difficulties for educational outcomes?
- 5) How, if at all, have communicating with femTALK using mobile devices helped or created difficulties for accessing local government?
- 6) How, if at all, have communicating with femTALK using mobile devices helped or created difficulties for developing agriculture or economic resources?
- 7) How, if at all, have communicating with femTALK using mobile devices helped or created difficulties for accessing health services?
- 8) How have you used, mobile devices, including Women's Weather Watch, Mobile Suitcase Radio or other mobile devices to communicate with femTALK, before, during and after Cyclone Winston?
- 9) How did using a mobile device to communicate with femTALK help, or create difficulties, for your community before, during or after Cyclone Winston?
- 10) Do you have anything else you'd like to share about how you communicate with femTALK using a mobile device, and how that has helped or created difficulties?

11) In your opinion, what would be the something helpful for you and your community, by using a mobile device to communicate with femTALK?

Appendix E - WWW Facebook Stream

During the course of the interviews and focus groups, particularly relating to the discussion on TC Winston, it became apparent that the use of Women's Weather Watch, was not just limited to SMS text messages, but also included Viber, Skype, and Facebook. While the content of the SMS messages and Viber were not available, the Facebook content, which would give an idea of the type of messages being sent through Women's Weather Watch, and more information about the events and conditions during TC Winston were available on the Women's Weather Watch Facebook page. Extrapolating from the Facebook feed of Women's Weather Watch during the period of TC Winston, the following illustration highlights some of the main posts that took place during that period:

19 Feb**3pm**

- Special Weather Bulletin #22 on Severe TC Winston shared to FB:
- <https://www.facebook.com/femLINKpacificpacific/posts/10156633513545093>

20 Feb**Special Weather Bulletin #36 on Severe TC Winston shared to FB:**

- <https://www.facebook.com/femLINKpacificpacific/posts/10156638029080093>
- National Emergency Operation Centre contacts shared to FB:
- <https://www.facebook.com/femLINKpacificpacific/posts/10156637890080093>

20 feb**•6pm**

- Update from Fane in Tavua:
- <https://www.facebook.com/femLINKpacificpacific/posts/10156637541200093>

•11am

- Change in TC Winston course update to FB:
- <https://www.facebook.com/femLINKpacificpacific/posts/10156636495685093>

21 feb**•6am**

- Fijian Government reminder regarding National Curfew shared to FB:
- <https://www.facebook.com/femLINKpacificpacific/posts/10156639424855093>

•9am

- Major cyclone history shared to FB:
- <https://www.facebook.com/femLINKpacificpacific/posts/10156639796600093>

22 Feb

11am

- WWW Update:
- “With power restored in Labasa Town our 100 watt FemTALK 89FM is back on air reaching out to a 10km radius. If you have information and messages to support rehabilitation including psycho-social support, health, nutrition, safety and security please email (etc)” <https://www.facebook.com/femLINKpacificpacific/posts/10156644179035093>

22 Feb

WWW Update:

- Women’s Weather Watch continues but for now so glad to hear from Adivasu that all okay at our Labasa Community Media Centre. However we do need electricity to be restored to resume FemTALK 89FM broadcasts - <https://www.facebook.com/femLINKpacificpacific/posts/10156643847480093>
- RNZI story featuring correspondents etc :
- <http://www.radionz.co.nz/international/pacific-news/297093/fiji-assesses-damage-after-cyclone-winston>

23 Feb

5am

- TC Winston aftermath update via US Navy Forecast:
- <https://www.facebook.com/femLINKpacificpacific/posts/10156646577285093:0>
- 8am
- Women from Ba and Rakiraki share their situation on the ground:
- <https://www.facebook.com/femLINKpacificpacific/posts/10156647122980093>

23 Feb

12pm

- WWW Updates: Food Security via Fane Lomani:
- <https://www.facebook.com/femLINKpacificpacific/posts/10156648007935093>
- 6pm
- Sally Rounds of RNZI speaks to Adi Vasu:
- <https://www.facebook.com/femLINKpacificpacific/posts/10156648839915093>

24 Feb

7am

- WWW Report via Sarojini Goundar in Tavua:
- <https://www.facebook.com/femLINKpacificpacific/posts/10156651053890093:0>
- 8am
- Cross posting to FB of Fiji One News report:
- <https://www.facebook.com/femLINKpacificpacific/posts/10156651273960093>

24 Feb

8pm

- Losana Derenalagi sent WWW updates and photos:
- <https://www.facebook.com/femLINKpacificpacific/posts/10156653164960093>

25 Feb

6am

- Sharing FijiTimes article to FB:
- <https://www.facebook.com/femLINKpacificpacific/posts/10156654684480093>
- 9pm
- WWW Update from Ba: <https://www.facebook.com/femLINKpacificpacific/posts/10156656962715093>

26 Feb

12pm

- WWW photos via Sokoveti Lutumailagi and Losana Derenalagi:
- <https://www.facebook.com/femLINKpacificpacific/posts/10156659678055093>
- 5pm
- Toll Free National Helpline info (132454) via MOH: <https://www.facebook.com/femLINKpacificpacific/posts/10156660344980093>

27 Feb

8am

- TC Yalo info via Fiji Meteorological:
- <https://www.facebook.com/femLINKpacificpacific/posts/10156662531205093> *Was no direct threat to Fiji and was in the vicinity of French Polynesia
- 7pm Video via DIVA For Equality: <https://www.facebook.com/DIVAFiji/videos/577045532459398/>

28 Feb

7am

- Data via UN OCHA:
- <https://www.facebook.com/femLINKpacificpacific/posts/10156666140030093:0>
- List of schools open via Fiji Government:
- <https://www.facebook.com/femLINKpacificpacific/posts/10156666148015093>

29 Feb

5pm

- WWW: TC Winston reflections by Lucille Chute:
- <https://www.facebook.com/notes/femLINKpacificpacific/www-my-experience-of-tc-winston/10153996759284295>

Appendix F - Additional femTALK TC Winston and Community Interaction Factors

There were other aspects about femTALK that also came out of the interviews. Some of these other pertinent factors included primarily, and repeated in eight instances, the way in which femTALK collaborates and interacts with mainstream media. Some of the statements made in this context included, “At a workshop organized by ABC Australia, based on 16 days of activism against gender-based violence, were able to interact with mainstream media, and increase awareness of femTALK”, “Highlighting the role of gender disparity in media, and collaborating more with mainstream media, including having them participate in the ‘Women in Sports’ slot”, “Legacy media structures – e.g., an ad that had a man as head of the household buying insurance, i.e., only for me, what would have women in media leadership effect those cultural biases”, or “Recently FBC contacted us to find out about what’s happening in the west and the current weather conditions, and were able to put them in contact with one of the women in our network.” Other statements in the context of the role of mainstream media included the idea that femTALK is building its network to think critically about representation of women in media, and that while mainstream media only have a few journalists here and there, femTALK is embedded in the communities within their network. In the context of mainstream media and government, one interviewee commented that there are currently a lot of blackspots in media access that the government should look at – for example, a woman had to put up her own aerial to receive radio. In terms of government interaction, interviewees also discussed the idea that the National Disaster Management Office is recognizing the importance of community media and wants to collaborate in the dissemination of information, noting specifically that Women’s Weather Watch text messages are put into simple and localized language making the complicated information provided by the Fiji Meteorological Office more straightforward. FemLINKpacific’s

policy documents were also highlighted for not being full of government-speak but extracting the strongest quotes from the different media platforms and putting them into their documents. Key features from policy documents referred to include making sure national development policy is in line with gender policy, i.e., budgets include resources for pregnant women, and look at how governance structures are properly representative, i.e., they are inclusive of the iTaukei system and informal structures that embrace women's voices. Another interviewee discussed the Memorandum of Understanding with the Secretariat for the Pacific to highlight gender through the media, and partnerships with the UN Women Step It Up for Gender Equality Media Compact, the Pacific Feminist Forum and FemLINKpacific's UN media accreditation at the World Humanitarian Summit. One interviewee noted that women appointed to Advisory Councilor roles only receive \$150 per month - to do weekly surveys, check in with their communities, provide additional reports, and that they have no monthly resources for travel, etc., so another need is to look at femTALK's support role. Finally, an interviewee discussed the way in which femTALK aims to make a conscious effort to break down intra- and inter-racial barriers.

Appendix G - Radio with Pictures Themes and TC Winston effects

Theme 1 shows examples of the traditional food practices that assisted in enhancing resiliency during TC Winston, connected to RQ2 and also demonstrate the type of information that was shared in “Radio with Pictures” as well as across the various platforms. Theme 2 describes some of the resiliency capacity developed, with regards infrastructure preparation, again in relation to RQ2. Finally, Theme 3 provides examples, shared over “Radio with Pictures” of infrastructural and resiliency challenges, further illustrating aspects of resiliency in relation to RQ2.

Theme 1: Traditional Food Practices

- 3-month root crop – Kumala
- Can also eat the leaves like Taro leaf.
- Mainly because we have a population of 200, we cook breadfruit as a whole to keep it longer
- It’s a sign of a cyclone if a breadfruit tree produces too much.
- Plant yams because yams stay longer. Leave the stems for consumption for longer.
- Cut down cassava plants so that the cassava would be preserved, otherwise would have been uprooted.
- Food preservation as a key disaster prevention strategy.
- Dalo root crop that is hard and can be preserved for a long time. Can be planted and is good after disaster.
- Plant rice and when harvest rice, put to dry and mango chutney from dried mango, and dried fish. Keep it for a long time. Also, dried goat.

- Before TC Winston what we feel in our community, there was a long drought and in the long droughts it reminds us that hurricane's cross. It was a big drought, all the people's cried out in our community and lot of sign we saw in our community like the bread fruit, they fruit for like one branch. There can be ten fruits there and it shows us that a hurricane is close. That was a sign for us not by the mobile, that was the sign for us. For the sixth month we know that it will be a hurricane. And also, the banana plant when the top, the cup of the banana tree, when it's curved down, it shows that a hurricane is coming close. That is our sign, our sign for olden days that our traditional knowledge.
- Told son to cut down all the cassava so that it wouldn't be uprooted. Prepared breadfruit for the family.
- From grandparents have heard that if it's too hot and lots of ants, it's a sign of a hurricane.
- Always store water and make use of the small water that we have.

Theme 2: Infrastructure Preparation

- Empowering and encouraging women – go fishing and planting together to help each other.
- In 1993 did not feel anything, but on 2012 in Cyclone Ewa was badly hit and in last 2 weeks with cyclone Winston were well prepared, whereas previously not prepared. Prepared first aid kit and made sure organized this time.
- Think about the way homes are built in the future for storage, with a ceiling gap to put things safely.
- When being warned about cyclone Winston all the women were prepared. Ready to move to higher ground.

- Most urgent attention required for sharing information. Women prepared themselves well through the weather bulletin, and that was able to be sent out.
- Staying in contact with the women through Women's Weather Watch and were able to get information and text to the women.
- Felt strong winds overnight, but prepared clothes etc. in a bag and put them on the bed so that if there is a leakage they would be safe.
- In regard to Winston, DIVA colleagues were doing a workshop (with Shirley), so switched to helping with the cyclone.
- A member of the family in Suva called them and told them to move to a house, which catered for them and another family, as live in a settlement near the sea, and worried about tidal waves.
- Through the media know how much to prepare and telling that water will be cut. - understood about storing water.
- Collected dry foods, important documents and shutters.
- Gathered all our things from our homes and went to the evacuation center.
- Contacted via mobiles from Suva to tell neighbors about the cyclone.

Theme 3: Challenges

- For the last 2 hurricanes there was lack of communication,
- devastated in a previous cyclone because of a shortage of water, and communication breakdown in 2003 Cyclone Amy. We're preparing for Winston by putting down shutters and cutting down trees but felt didn't receive enough information.

- So, no provision for children's wheelchairs. Her mum was really trying to think about her health, and living with a disability, and where she's going to run to when the hospitals are full. Using a catheter and colostomy bags, the medical stuff is sent from Australia and has stopped since the cyclone, and unable to find that in Fiji. Her mum has to rush to the pharmacy to get the medical equipment. She was using a roller skate and was bleeding from dragging around on the roller skate when she was a child. The evacuation center has rickety stairs, and many evacuation centers are not disability friendly. In Nadi not accessible and even though it has five steps there is no wheelchair ramp to get into the center.
- Information relayed was not accurate – saying cyclone was coming, but not that it was category 5. Relying on other people – and one driver from Commissioners office was assisting with how to prepare for the cyclone – candles shutters etc. Waiting for the 6pm news on Friday.
- Don't have electricity, so the only power is a small generator from 3 to 6pm, but the generator is not working, and use that to charge phones.
- Broadcasted the cyclone was coming but weren't sure of the evacuation centers and unsure where to go as none announced.
- Radio and mobile phone network were down. The health center was telling us that there is going to be a cyclone during the week, and for us to be prepared.
- We're calling and talking with the women in Suva, as the alert was for Central Division, and many people said not affected, and thought about Sigatoka. - confused and not prepared.
- Need to make evacuation centers accessible and safe.

Summary of Economic and Agricultural Initiatives described in Radio with Pictures

A summary of the economic and agricultural initiatives described in Radio with Pictures, and the challenges associated with them, are shown in Table 8 below.

Economic initiative	Economic Initiative Challenge	Agricultural Initiative	Agricultural Initiative Challenge
Poultry farm	Low income	Seedling nursery	Chicken pecking
Kitchen business	Lack of goods	Bee-keeping	Land ownership
Bakery	No electricity	Sugarcane farming	Racialized land policies
		Beach decorations	Drainage

Table 8 – Economic and Agricultural Initiative Challenges described in Radio with Pictures

TC Winston Effects and Post-Winston Recovery

Since TC Winston, in the ‘Radio with Pictures’ discussions, the panelists discussed a number of post-Winston effects. Some effects described included the information that since TC Winston there has been an increase in cost for market vendors. This includes increases in the costs for food, transportation and tables. The panelists also described how some of the settlements never received information about the impending bad weather and therefore were most severely affected.

Furthermore, specific requirements were highlighted post-Winston, including the need for the disaster response to include psycho-social services with trauma mitigation and peace healing, which could also draw on skills from the arts. Support with the provision of seedlings and advice on planting was also stressed as important.

The effects on local life described during TC Winston included food and water access effects, as well as communication and weather effects.

Table 8, below, summarizes the TC Winston effects described, illustrating resiliency challenges in the context of food, water, power, communication and weather, for RQ2.

Food, water and power effects		Communication effects		Weather effects
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<p>Korunumba - Ba has been without water and electricity. Immediate effects from Sunday – families going without homes and without food. Didn't prepare well, because thought it was like any other cyclone.</p>	<p>So, during the Winston your mobile devices were still working?</p> <p>Female Interviewee 5: Still working.</p> <p>Female Interviewer: Okay, because the disadvantage in the upper area is because the network was down, it completely shut off</p>	<p>After the cyclone, like Lambasa it was not much damage only there was heavy rain and a little bit of flooding in lower land areas and like we got a SMS from our other friends like network people especially in Rakiraki and Nadi, Lautoka, Ba side, that site they were having like division was a lot affecting those people, houses, all those things.</p>
<p>Nausori - the consumption of food was already gone and food crop destroyed</p>	<p>We were cut for a few days. About four days, but the only radio that was going was this one, FemTALK. Even the other radio was disconnected.</p>	<p>Like after the Cyclone Winston that we were given information that we, like we were hearing some of our friends and families and relatives their house was blown [sic] and they don't have a place to stay, they don't have a proper water supply, no good water to drink and food to eat. So, we were getting information like that you know like that time when we got these information [sic] then we our like group all those preparing to give some money to them or where to send, whom to give so that we can send them to help them, this was going on after the Cyclone Winston.</p>
<p>Labasa - Most goods destroyed in Kina, because flood was very high. Have to do backyard gardening now, to get products faster. If getting from farmers, will be very high prices. Should expect as consumers that there will be limited produce and rising costs.</p>	<p>Were totally lost during Winston with the blackout of radio and TV - did receive SMS from Sharon.</p>	
<p>Central Division - Had some power to access www, to get information about speed and category. For the informal settlement it is prone to flooding</p>		
<p>Cane fields were badly damaged and those are income generating for farmers.</p>		
<p>Ba - without water and electricity and food shortages. Come to Lautoka and Nadi to buy food. No food available.</p>		

Table 8 – TC Winston Effects

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